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Educational News and Editorial Comment

THE CASE AGAINST CHILD LABOR

The expansion of industry in this country during the nineteenth century, especially during the last quarter of the century, was accompanied by the employment of a large percentage of the children between the ages of ten and fifteen. Beginning about 1910, however, there was a sharp decline in the employment of young persons. In that year approximately 25 per cent of the boys and 12 per cent of the girls of ten to fifteen years of age were in gainful occupations, but by 1930 gainful occupations among boys had dropped to 6.4 per cent and among girls to 2.9 per cent. There was an aggregate decline in the employment of persons in this age group from 18.4 per cent in 1910 to 4.7 per cent in 1930. Something of the magnitude of the decline of juvenile employment is indicated by the fact that in 1930, in all the major occupational groups except agriculture, persons under sixteen years of age comprised less than 1 per cent of the gainfully employed.

There are a number of very good reasons why children and youth should have been progressively excluded from gainful labor. For a number of decades we have been developing an economic structure in which it is increasingly difficult and increasingly undesirable for

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youth to engage in gainful employment. The fact is, modern industry is not organized for the employment of immature young persons. They cannot be safely trusted with the operation of costly and complicated machines. Seemingly there is an inherent conflict between an advancing technology and the early entrance of young persons into occupational life. Every advance in technology tends to reduce the demand for unskilled labor. The complexity of the processes of industry and commerce requires increased skill and a greater degree of trained intelligence as well. Scientific investigation reveals clearly that industry and commerce have, in many instances, not only resisted the entrance of children into occupations but have even gone so far as to impose advanced and explicit educational requirements as conditions of admission.

It is not, however, the influence of technological advance alone that has delayed the entrance of youth into gainful employment. An influence of perhaps equal importance is the changing attitude which society is taking toward childhood as a period of development and adjustment. A better understanding of the meaning of infancy has made it clear that there are fundamental biological reasons why human infants require a prolonged period of growth and development. Society has come to regard the years of childhood not merely as a period of dependency but as a period for the development of the capacities of youth. It is coming to be recognized that child care is a fundamental social obligation. Society simply cannot permit its youthful members to grow up under conditions which jeopardize their physical and mental health and which prevent the development of those moral and social qualities necessary for good citizenship. Youth, moreover, must be introduced to those social institutions which are basic to civilized life, such, for example, as language, number, government, and art. They must be given, too, some measure of critical understanding of the economic, social, and political institutions of the particular society of which they are members. Finally, society must in some way prepare its youth for productive labor in an industrial system ever growing more complex, and it must direct them into types of work that will permit of their further growth and development.

The changing pattern of the population structure is still

another factor which makes the employment of young children an anachronism in present-day America. The decline in the birth-rate, greatly accelerated in recent years, is reducing materially the number of children to be supported per thousand adults. If, for example, the ratio of white children under sixteen to white adults of twenty years and over had been the same in 1930 as it was in 1850, we should in 1930 have been supporting and caring for approximately 60,000,000 children instead of 33,000,000, the actual number. It is obvious that society's burden in caring for its young dependents, with regard to the sheer matter of numbers, is being materially reduced. Society, having relatively fewer young dependents to support and care for, is able to take a new attitude toward youth, to lengthen the period of their dependency, to delay their entrance into gainful occupations, and to provide them with extended and enriched educational opportunities.

It is considerations such as those enumerated in the preceding paragraphs that have led to the enactment of child-labor and compulsory school attendance legislation. Fortunately the great majority of employers, like other public-spirited citizens, are opposed to the employment of young children. In certain areas and in certain industries, however, there are employers who are willing to exploit children with as much ruthlessness as ever. The fact that most children are unemployed should not blind us to the fact that many thousands are still employed and that for them child labor is a stark reality.

In its recently published annual report the National Child Labor Committee comments as follows on the increase of child labor after the industrial codes were declared invalid:

> That child labor began a rapid comeback as soon as the provisions of the industrial codes were rendered invalid is clear from the official reports on employment certificates issued to fourteen- and fifteen-year-old children from areas in which there has been no change in the state child-labor law and for which comparable data for both years are available. In the 10 states and 98 cities in other states thus reporting to the Federal Children's Bureau, 8,400 children were granted regular employment certificates between January 1 and June 1, 1936, as compared with 3,350 for the corresponding period of 1935, when the industrial codes were in effect, an increase of 150 per cent.
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> In the states and cities reporting on these children's occupations, manu-

facturing, mechanical, and mercantile industries absorbed more than 25 per cent of the children, as compared with only 5 per cent in 1934, when the N.R.A. was in effect.

The National Child Labor Committee determined to go back of these returns and to find out the actual conditions under which some of this growing number of children were laboring. With the limited staff available it was possible to cover only two industries, partially. First, the lumber, turpentine, and woodworking industry in southern states, and, second, that ancient stronghold of child-labor abuses, the sugar-beet industry of the Midwest.

When man went into the primeval forests to hunt for game and to build his huts, he was more reasonable in the use of the gifts of Providence than in these latter days when he has learned to strip the earth naked of its woods and to plow up the soil so crudely as to leave it defenseless against wind and drought over huge areas.

Senseless as such procedures are, they are not half as hard to condone as the ruthless exploitation of young children which the committee has uncovered in the lumber and woodworking industries of the southeastern states. It is almost incredible that such conditions could exist in the year 1936, following hard upon the most striking example which this country has ever had of what can be done to remove children from most branches of industry so that they may have a fair chance at health, education, and the good things of life. Extensive visits in South Carolina and less extensive in Georgia, Alabama, Mississippi, and Louisiana from where the pine trees are tapped for their turpentine or lumber is cut for the mill, to the manufacturing plants where such products as fruit crates, potato barrels, and wooden baskets are made, have revealed a misuse of children that is as predatory in essence as anything that has gone on in this country since the days when the mills of New England one hundred years ago advertised for children to do their work.

In the areas covered little concern was found for the education of children. Many schools run on short terms or are closed when work calls. In some places there is no attendance officer, and the illiteracy rates continue high. In forest districts dozens of children were found who either had attended no school for years or were struggling along in first to fourth grades—usually two to six years retarded.

In the outlying branches of the lumber industry boys of ten can be found engaged in lumber mills, pole-peeling and even logging in the swamps and sand bogs, and fourteen-year olders at jobs that tax the strength of grown men are not uncommon. The chipping and pulling of pine trees for turpentine and the hard and sticky work of gathering the turpentine are carried on largely by young workers. These outlying sections are not much disturbed by inspections by state officials to see that children are not abused and that they are in school where they belong.

The dangers involved from unguarded belts and saws and defective boilers in the "grasshopper" mills scattered over the lumber territory, as well as in field

operations, such as pole-peeling, are a menace to the children employed in them and to even older youths too immature for such hazardous occupations.

In all of these lumber and turpentine industries the rate of pay for the children is far below one that would make a decent living possible. A father and two young sons make less than twenty cents an hour for the three for hauling logs; dipping turpentine may bring fifty cents for a twelve-hour day, and so it goes. . . . .

A more rapid survey this summer of conditions in the sugar-beet fields of Colorado and Nebraska (the first, the leading sugar-beet state, and the second, one of the next rank) have confirmed the principal findings of a more thorough inquiry made during the summer of 1933. The conditions under which little children are being made to work in the fields at inhumanly long hours and the standards of living of their families generally have gone back to those at the low point of the depression. Quarters provided for workers and their families are wretched. The gains made under the sugar-beet adjustment contracts, entered into under the Jones-Costigan Act, have apparently been swept away.

It is again true that the great majority of children above eight years of age in the families of sugar-beet laborers in the areas visited are employed at heavy manual labor for long hours in the production of sugar-beets. The committee found a young girl of six years of age forced to work in the fields regularly every day because it was claimed she could do more work than many men. During certain rush periods and especially during the autumn when the beets are pulled out of the ground, the pressure on these children is intense, and the load of work required is an inhumanly heavy one for the immature muscles of young children, some hardly more than out of their babyhood. While harvesting is in progress, the weather is frequently cold and stormy, frost is often on the ground, and clothing, far too scant a protection at best against wind and weather, becomes wet, but childish backs and legs and cramping fingers must drive on.

Children are frequently kept out of school during harvesting in the fall. In fact, the numbers are so great in some areas that the schools are formally closed for what is ironically called a "beet vacation."

Even when laborer families use all of their children down to eight and seven years of age, the income is so low as to place the standard of living on a starvation level. The result is that, while they eke out an existence of a kind during the summer months and the early fall, funds soon disappear and these laborers, producers of beet-sugar for our markets and homes, are found waiting at the door of the relief office for public support.

Thus a great industry in Colorado, Nebraska, and some other states literally pays its dividends out of the wretched hardships of children and out of living conditions for their families involving poor and unwholesome food, inadequate clothing, and almost no recreation, together with crowded and almost unbelievably bad housing and sanitary conditions.

The American people should put an end to conditions such as are described in the report from which the foregoing paragraphs are

quoted. The only practical way to do it is to adopt the Child-Labor Amendment to the federal Constitution. During 1937 the legislatures of nineteen states which have not yet ratified meet in regular session. Four of these states have taken favorable action. Adoption of the amendment will require ratification by eight more. All who are convinced that nation-wide standards governing the employment of children are necessary and that public opinion in behalf of the elimination of child labor should be crystallized in legal safeguards should lend their support to the adoption of the amendment.

Education in England in 1936

Education in England is undergoing a significant reorganization. Extended and enriched educational opportunities are being provided for the adolescent population; gratifying progress is being made in the establishment of nursery schools; the school medical service is being improved; more attention is being devoted to laying the foundations of healthy upbringing; and in many places the social and economic environment of children is being materially improved through the removal of slums. The following statement, quoted from the London *Times Educational Supplement*, summarizes in a general way some of the most significant changes that occurred in English education during 1936.

> In a year of momentous national events education has not been neglected. It may well happen that in days to come the past year will be regarded as one of the most important in the annals of our school system. At last we have broken away from the long-accepted belief that for the vast majority of children schooling should end at or about the age of fourteen. This belief was probably engendered by the old custom of apprenticeship, a custom which was broken, to the disadvantage of children, by the demand for child labor which accompanied the Industrial Revolution. For upwards of a century the schooling of boys and girls was subordinated to the assumed needs of factory, workshop, and mine. Cheap labor was in demand, with short schooling as an inevitable corollary.
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> Although in some quarters there is still some opposition to extended school life for all children, the discussions of the past year have revealed a growing conviction that the modern conditions of industry and commerce make possible a raising of the school age. The change is justified on both economic and educational grounds. Experience shows that industry need not suffer any permanent loss, and the educationist has for a long time been pointing out the grave risks

which attend the neglect of educational opportunity during the critical years of adolescence.

The process of reorganization on the lines of the Hadow Report has advanced greatly during the past year, and in the near future we shall have a co-ordinated scheme of grant-aided schools. At the beginning there will be nursery classes and nursery schools where local conditions make them desirable. Schools for infants will be retained, and they will lead on to junior schools or departments for pupils between the ages of seven and eleven. Following these facilities for the primary stage will come postprimary schools of various types, some making provision for pupils up to the age of fifteen, others for those who can remain to the age of sixteen or even eighteen.

These developments are made possible by the provisions of the Education Act of 1936. . . . .

The question of school examinations conducted by external examining bodies came into prominence at the beginning of the year, following an investigation based on a comparison of marks allotted to examination scripts by independent examiners and boards of examiners. The inquiry was carried out by a committee of well-known educationists, with Sir Michael Sadler as chairman, and the results were certainly disquieting, although their validity was questioned by some officials of examining boards. The evidence tended to show that the marking of examination scripts is at best an uncertain business, with far too much depending on the personal equation of the examiner.

More recently, and perhaps more profitably for the ultimate good of our school system, there has been a growth of interest in the physical welfare of children. On this question the Board of Education, the Ministry of Health, and the three branches of our armed forces are in agreement. All desire to see a great improvement in the national physique. It is desirable that they should arrive at some agreement as to how their aim may be realized. Already there have been official visits to Germany and Scandinavia for the purpose of learning what is done abroad. . . . .

A recent circular from the Board of Education (Circular 1444) gives promise of advance all along the line. Nursery schools and classes are encouraged; the rate of grant for school buildings is increased from 20 per cent to 50 per cent as from January 1, 1937. School planning is under review; special places in secondary schools are to be available to an extent which will insure that no parent is called upon to pay more by way of fees than he can afford; there are to be more open-air schools; and local authorities are enjoined to make a thorough survey of their medical and dental services, giving special attention to the needs of children who suffer from defects of vision or hearing, from rheumatism, or from mental deficiency.

This circular and the Education Act of 1936 are the starting points of a new era of educational progress.

Improvement of Education in Argentina

A recent issue of the *Bulletin of the Pan American Union* carries the following account of the work of the National Council of Education of Argentina.

During the three-year period from May 15, 1933, to May 15, 1936, the National Council of Education of Argentina carried out a vast program of improvement of the educational facilities in the whole country. The council continued its efforts to reduce illiteracy, establishing for this purpose new schools and reorganizing the *Oficina de Obligación Escolar*, which is intrusted with the task of seeing that children of school age are given the proper educational attention. Thanks to the efforts of the council, 151,200 children who otherwise would not have been provided for were able to attend school in the capital, provinces, and territories during the above-mentioned period.

The council also took measures to solve the truancy problem, a very serious one in certain regions due to the lack of proper elementary and higher grades in existing schools. After these grades were established, school attendance increased 70 per cent.

The teaching staff of the various schools likewise received the attention of the council. The payment of teachers' salaries was brought up to date; a system of automatic promotion was established; and 5,922 new teachers were appointed for the provinces and territories.

Teaching methods were improved, and a bill on the unification of teaching for the whole country was presented to the National Congress by the Executive.

The council also endeavored to bring about a reduction of the prices of textbooks and other school material. With the co-operation of the Military Geographic Institute of Argentina, the council secured at a reduced price 5,800 maps of the Republic for distribution among the public schools. In the matter of school buildings, the council was endeavoring to obtain the necessary funds from the National Congress to repair, enlarge, and improve those which it owns at the present time and to lease or buy others where necessary and expedient. Money saved by revised leases was used to establish new schools.

A Criticism of the George-Deen Vocational Education Act

The George-Deen Act, which was passed by the last Congress and which will become operative July 1, 1937, authorizes a substantial increase in the federal subsidies for vocational education. Under the terms of the act, $4,000,000 is authorized to be appropriated for vocational education in agriculture, $4,000,000 for vocational education in the trades and industries, and a similar amount in home economics. In addition the act authorizes an annual appropriation of

$1,200,000 for vocational training in the distributive occupations—retailing, wholesaling, jobbing, commission buying and selling, and other merchandising occupations. An appropriation of $1,000,000 annually is also authorized for the training of teachers of vocational education in agriculture, trades and industries, and home economics.

In two respects this act is subject to serious criticism. In the first place, the method of apportionment of funds ignores completely differences in the age structure of the population in the different states. One-third of the $12,000,000 authorized to be appropriated is to be allotted to the states in the proportion that their farm population bears to the total farm population of the United States; a third in the proportion that their rural population bears to the total rural population; and a third in the proportion that their nonfarm population bears to the total nonfarm population. The whole sum authorized for vocational education in the distributive occupations is to be allotted to the states in the proportion that their total population bears to the total population of the United States. On the surface these bases of distribution may seem equitable, but the fact is that youth of high-school age, the group primarily provided for in the George-Deen Act, are very unequally distributed in relation to adults among the farm, the rural, and the nonfarm population in the different states. For example, the ratios of children of high-school age to adults in the farm population of the various states show marked variations. The number of children fourteen to seventeen years of age for each 1,000 adults of twenty to sixty-four years of age in the farm population in a selected group of states in 1930 was as follows: South Carolina, 277; North Carolina, 258; Georgia, 254; Utah, 238; Idaho, 193; Massachusetts, 168; Illinois, 167; Iowa, 165; New York, 151; New Hampshire, 139; and California, 138. There are also marked differences in the ratios of children to adults in the nonfarm population of the various states. The fact is that differentials in fertility result in marked differentials in the distribution of young persons throughout the population of the various states. If federal funds are to be used for the education of these young persons, they should be allotted to the states in terms of the young people to be educated and not in terms of total populations. There can be little doubt that the George-Deen Act favors those states in which

the adult population is carrying a relatively small population of high-school age—the very states that are in least need of aid.

A second criticism of the act is that it fails to recognize in any adequate way the changes that are taking place in employment opportunity. Twelve million dollars are authorized for vocational education in agriculture, in the trades and industries, and in home economics, and only slightly more than one million is to be apportioned for vocational education in the distributive occupations. Yet for a number of years the trend of employment opportunity has been clearly away from productive to distributive and service occupations. The percentage of the gainfully employed who are engaged in the production of physical goods in agriculture, mining, and industry has been declining steadily. The percentage of the gainfully occupied who are employed in agriculture has steadily decreased since 1870. During the twenty-year period from 1910 to 1930 the number of persons engaged in agriculture decreased approximately 15 per cent. Until 1920 manufacturing and mechanical pursuits provided employment for an increasing percentage of the gainfully occupied, but during the following decade this tendency was reversed. The evidence indicates that science and technology have released fully one-fourth of the labor power of the nation from physical production and made it available for such other activities as transportation, trade, professional, and clerical work. In the face of well-established occupational trends such as these, a federal program for the promotion of vocational education which continues to emphasize training in the productive industries to the almost total neglect of trade, transportation, and service occupations seems out of touch with reality.

When he signed the act, the President indicated a belief that, before it took effect, the "whole subject should be reviewed by a disinterested group." Sometime ago, therefore, the President appointed a committee to evaluate our national experience under the existing program of vocational education and to study the relation of such training to general education and to prevailing economic and social conditions. The report of this committee will be awaited with great interest.

A Counseling Service for Directors of Public Forums

The following release has been made public by the United States Office of Education.

A counseling service on program-planning for adult civic education in public forums is being offered by the Office of Education in connection with Federal Public Forum Projects, according to J. W. Studebaker, United States Commissioner of Education.

As a result of the operation of ten forum demonstration centers in ten states during the past five months, the Office of Education has received thousands of requests for information concerning these programs of public discussion. In order to make the demonstration of these projects of maximum value to other communities in developing programs of their own, an information service from the Office of Education in Washington will augment the activities of the local projects in making available the experience of the program.

Paul H. Sheats, director of the Chattanooga-Hamilton County Public Forum Project, has been added to the staff as a field supervisor and associate of the assistant administrator, Chester S. Williams.

The building of new schools with large auditoriums and municipal auditoriums in more than two thousand communities throughout the nation as a part of the program of the Public Works Administration has created thousands of new meeting places. This has stimulated the interest of educational authorities and civic leaders in these communities in providing programs of public discussion and forums for the adults. The Office of Education is now in a position to counsel with these interested educational and civic leaders concerning practical programs of adult civic education. Careful records are being assembled on the activities of the forum demonstration projects. In addition the Office of Education has made a comprehensive survey of 431 public forums sponsored by all types of community organizations. The data and information now in the files of the Office of Education are the basis for answering numerous questions, such as probable cost, problems of management, method of scheduling speakers, visual aids, publicity, use of the radio, and many other problems involved in developing new programs of adult civic education.

In addition to the ten public forum demonstration centers which have operated programs since September, 1936, nine new demonstration centers began schedules the first of February, 1937. The nine new centers are located in Dayton, Ohio; five townships in Fairfield County (Stamford) Connecticut; Lenoir, Greene, Pitt, Wake, Wilson, Johnston, and Wayne Counties, North Carolina; Delaware County, Pennsylvania; McLennan and Falls Counties, Texas; Seattle, Washington; Atlanta, Georgia; Milwaukee, Wisconsin; Weber County, Utah.

Here and There among the Schools

From time to time the *Elementary School Journal*, under the caption "Here and There among the Schools," has published brief reports of innovating practices in the fields of administration and supervision, the curriculum, methods of instruction, community relations, and the like. The editor of the *Journal* extends to its readers an invitation to supply such information concerning their own schools or school systems. We cannot, of course, guarantee that all such materials will be noted in our issues, but all materials submitted will be carefully examined with a view to making helpful information available to others.

Problems of school maladjustment.—There is an increasing awareness among administrators and teachers of the problems of the maladjusted child, and there are developing more comprehensive and effective methods of treatment. Not so long ago, before the advent of what has been called the "statistical era," the selective and classifying process of the school quietly and effectively threw aside those pupils who failed and retained the pupils who were able to meet requirements. The application of statistical procedures, however, revealed with more or less precision the startlingly large number of maladjusted pupils, created an inquiring attitude concerning the cause of the large amount of maladjustment, and raised doubts with respect to educational aims and processes. The more recent development of mental and educational measurements called attention forcibly to individual differences in ability and in personality traits and afforded the basis of meeting individual needs. In dealing with the so-called "problem child," however, educational administration has placed chief emphasis on the mental and the intellectual phases of child development, has sought primarily to effect an adjustment to school conditions on the part of pupils whose mental equipment precluded the achievement of the regular school course. Studies of juvenile delinquency, truancy, adult crime, and the social-pathological problems of both adolescents and adults reveal, however, that any successful attack on the problems of the maladjusted must be directed to an understanding of the effects of the total environment—economic, social, intellectual, and emotional.

Recognizing the necessity of this broader type of attack, the Joint Committee on Problems of School Maladjustment in New York City has prepared, under the direction of Eugene A. Nifenecker, director of research, a volume of 215 mimeographed pages showing school background conditions, factors, trends and problems in New York from 1900 to 1934. The general purpose of the study is indicated by the following excerpt from the Introduction.

> The Joint Committee on Problems of Maladjustment, Truancy, Delinquency, etc., which has been functioning during the current school year, aims at . . . . a more organized and purposive program. While considering the problem in all its aspects, the committee is directing specific attention to the administration of the schools to determine those elements in school organization and procedure which may be causal factors in school maladjustment.
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> It is recognized that the various elements of school administration, organization, and procedure are so closely interrelated and interdependent that a study of the problem in one field will inevitably involve other elements and phases. In fact, it is essential, while delimiting the problem as far as possible for effective study, that all related factors and conditions be taken into account.
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> Again it must be recognized that, while the school system only too often attempts to operate in isolation, its work has been and is very greatly conditioned by forces and factors of a social and economic nature operating in the community. Over some of these "outside" influences the school system many times can exercise little or no control. To others, frequently it attaches too little significance, and to many it generally responds somewhat tardily. In any comprehensive study of maladjustment problems the influence of such extra-school factors must be given due consideration.
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> It is the aim of this report to present factual data with reference to some of the conditions, factors, and problems in the schools that have been current during the past three or four decades. A review of our local school administration will serve to show how these conditioning elements have affected the development of the school system and have in large part determined the character of its program. The data will also show the varying needs and conditions in different sections of the city which cannot be adequately met by a uniformity in administrative requirements, but which call for a form of "individualized" administration.

The following topics are treated at great length: "The Problem of School Housing and Congestion," "The Problem of Racial Heterogeneity," "Some Other Socio-economic and Educational Factors and Trends." Under the last topic attention is given to illiteracy in the population, inability to speak English, citizenship of the foreign-born population, birth and death rates, aging population, lengthen-

ing the period of schooling, changes in character of school population, and distribution of intelligence in school population.

A suggestive list of activity units.—Supervising Principal Edgar M. Finck, of Toms River, New Jersey, with the assistance of a committee of teachers, has prepared a mimeographed booklet entitled "Activity Units: How! When! Why!" Portions of the booklet are devoted to the following topics: "Definition of an Activity Unit," "Five Antagonisms Harmonized," "Twenty Reasons [for Including] Activity Units in [the] Year's Work," "Conditions Essential to the Success of an Activity Unit," "An Outline for Planning an Activity Unit," and "A Suggestive List of Activity Units." The section on possible activity units will probably be most interesting to teachers who employ this method of instruction. It contains more than a hundred suggested units, the work of each unit being described in some detail.

A study of the attitude of parents toward the conference method of reporting pupil progress.—Since 1932–33 the teacher-parent conference plan has been in operation in the Liberty School, Highland Park, Michigan. In a recent report Roy E. Robinson, principal of the school, describes the plan and presents evidence to show how parents have reacted to it as a substitute for the traditional report card. The plan is described briefly as follows:

> The Teacher-Parent Conference Plan was inaugurated in the Liberty School, Highland Park, Michigan, in the first semester of the school year 1932–33. The demand for a flexible, adaptable, and more personal form of reporting pupils' progress to parents grew out of much the same feelings on the part of the teachers and principal that are outlined in the foregoing discussion.
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> Although offhand it seemed laborious, the Teacher-Parent Conference actually involved less total work than letter-writing. . . . .
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> The plan was based, as its name implies, on the teachers' and parents' getting together for the purpose of discussing the child's reaction to school life. The conference was to be held after the school hours of the primary children. Arrangements for the conference were made in advance by letter. The minimum number of conferences agreed upon was one per semester with the provision that the teacher would go to the home when it proved impossible to get the mother or father to come to the school.
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> No set procedure was used in the conference, the things to be discussed being left up to the judgment of the teacher. All school records were available for use where needed. Emphasis was, however, made on the child's actual rather

than relative achievement. Personality and social traits were discussed as the teacher thought best.

To put the plan in effect, the mothers of first-grade children were consulted and their approval obtained before the plan was adopted. The degree of success achieved by the plan during its first semester of operation warranted its being continued on into the succeeding half-grade, while the next group of beginners were reported according to the new plan. As the original grade continued on through the primary department, the plan "grew" with them until at this writing the entire first, second, and third grades involving over three hundred children and nine teachers are sending home no formal written reports of any kind. The information is being given to the parents entirely by the Teacher-Parent Conference Plan.

After the plan had been in operation for three years, a questionnaire was submitted to parents in an attempt to evaluate their attitudes toward the new method of reporting pupil progress. An analysis of the answers led to the following generalizations.

Most parents are aware that this special plan is in existence in the Liberty School. They do not consider its school-visitation feature a serious inconvenience to them, and all but a few manage to come to the school for the conference which lasts, according to their recollection, from ten to twenty minutes. Whether as a consequence of the plan or not, over half the parents visit the school without any special requests. The parents are equally divided as to plan preferences, report card or conference plan, when it comes to reporting how well the child does in the academic subjects of reading, writing, spelling, and arithmetic; but, when the social and personal factors are considered, they show a marked preference by voting three to one in favor of the Teacher-Parent Conference Plan.

Parents who favor the report card in general for reporting children's reactions to school life take exception to their plan preference later on when they consider which plan gives them "the best understanding of school methods, subject matter, and school life in general"; while, on the other hand, those who favor the conference plan remain consistently in its favor throughout questioning.

Parents whose children have never had any experience with report cards show greater preference for the conference plan than do others.

The lower the grade, the more the parents favor the conference plan. The longer their children have had contact with the plan, the better the parents like it. Fathers favor it slightly more than do mothers.

This plan involving a very personal treatment of the problem of reports to parents has much to recommend it. It seems to be free from the most objectionable features of the traditional report card, but demands more time in its administration. It does, in this writer's opinion, merit further study in its relation to the subject-matter curriculum, to personality growth, and to social adjustment.

A change in organization in Stoneham, Massachusetts.—We are in receipt of the following communication.

Superintendent Varney of Stoneham, Massachusetts, announced on January 4 that the Stoneham junior and senior high schools had ceased the two-platoon system of attendance which has been in practice during the past few years. Return to the one-session plan was effected by adopting the recommendations of the Survey Committee which studied the Stoneham schools, Grades VII–XII, during the summer of 1936.

Informing the public of the schools' work and needs.—"Campaign Material for the Special School Levies" is the title of an extensive mimeographed volume issued some time ago by the Board of Education of Cincinnati. It is an excellent illustration of the kind of information that a board should provide its public, and the material is admirably organized and presented.

Who's Who in This Issue

Arthur I. Gates, professor of education at Teachers College, Columbia University. Nelson B. Henry, associate professor of education at the University of Chicago. Carleton Washburne, superintendent of schools at Winnetka, Illinois. Mabel Vogel Morphett, director of research of the Winnetka public schools. David Segel, specialist in tests and measurements of the United States Office of Education. Harold H. Postel, principal of the Moseley School for Boys, Chicago, Illinois. Florence L. Goodenough, research professor of the Institute of Child Welfare, University of Minnesota.

THE NECESSARY MENTAL AGE FOR BEGINNING READING[1]

ARTHUR I. GATES
Teachers College, Columbia University

For some time the problem of determining the optimum or necessary mental-age level at which reading can be successfully introduced has been under investigation. Recently statements have been made, in books written primarily for professional workers, which imply that this problem is fairly well solved. For example, Harrison states, "It has been found that in order to make any progress in reading a child must have attained a mental age of at least six years and that a mental age of six and one-half years more nearly insures success."[2] Betts also states, "An analysis of reading-readiness or aptitude tests shows the following factors to be significant for success with the typical first-grade reading program: (*a*) a mental age of at least six and one-half years. . . . . "[3]

These statements and most others appearing in professional books imply, more specifically, that success with *typical* first-grade reading programs requires a stipulated mental age, six and a half years being the age usually given. These statements may be correct, although a critical analysis of some of the experiments would cause some persons to doubt the validity of stipulating so definite a level. The fact remains, however, that it has by no means been proved as yet that a mental age of six and a half years is a proper minimum to prescribe for learning to read by *all* school methods, or organizations, or *all* types of teaching skill and procedures. It is quite conceivable —indeed the evidence in general tends now definitely to show—that the crucial mental-age level will vary with the materials; the type

[1] For most of the statistical work involved in this article the author is indebted to the services of workers in United States Works Progress Administration Project No. 6063-C.

[2] M. Lucile Harrison, *Reading Readiness*, p. 6. Boston: Houghton Mifflin Co., 1936.

[3] Emmett Albert Betts, *The Prevention and Correction of Reading Difficulties*, pp. 24–25. Evanston, Illinois: Row, Peterson & Co., 1936.

of teaching; the skill of the teacher; the size of the class; the amount of preceding preparatory work; the thoroughness of examination; the frequency and the treatment of special difficulties, such as visual defects of the pupil; and other factors. For example, in a study by Gates and Bond[1] a mental age of six and a half years did not appear to be a critical level.

In the present article are assembled data on the relations between mental age and success in learning to read in Grade I in a number of different groups which were taught by appreciably different methods and materials. The particular classes selected for this report are taken from a somewhat larger number that were analyzed to illustrate the facts related to certain issues.

FIRST GROUP

The first illustrations are taken from the results of the work in first-grade classes in which the teaching was done under the supervision of Miss Florence W. Raguse, of the State Teachers College at Indiana, Pennsylvania.[2] The pupils were divided into two classes of forty-one and thirty-seven pupils, respectively. The average intelligence quotient of the former class was higher than that of the latter. Full details concerning the pupils and the methods of instruction are given in Miss Raguse's article. It will be sufficient to state here that, in addition to the usual equipment of books, these teachers were provided with a considerable amount of supplementary practice and teach-and-test materials made up for the purpose. Not only was the teaching rather closely supervised, but the teachers had a larger amount of easy reading and self-diagnostic material than usual. For the present purposes, the pupils of these two classes have been combined into one group. The reading attainments were measured more than a month before the end of the school year with the three Gates Primary Silent Reading Tests. As a measure of success in reading, the results of these three tests were averaged. The teachers also kept a record of the total number of books read prior to the time that the achievement tests were given.

[1] Arthur I. Gates and Guy L. Bond, "Reading Readiness," *Teachers College Record*, XXXVII (May, 1936), 679–85.

[2] Florence W. Raguse, "Qualitative and Quantitative Achievements in First Grade Reading," *Teachers College Record*, XXXII (February, 1931), 424–36.

In the group of seventy-eight pupils the correlation between mental age and average reading grade was $.62 \pm .05$. This figure, it will be noted, is rather high in comparison with the correlations usually obtained in similar studies. The correlation between chronological age and average reading grade was $.10 \pm .08$. The correlation between average reading grade and the number of books read was $.84 \pm .02$.

As an illustration of the procedure, the records of the individual pupils for mental age, chronological age, average reading grade, and number of books read are given in Table I, in rank order from the highest to the lowest mental age. As a means of locating a possible critical mental age for success in beginning reading, these pupils were grouped according to mental age by six-month steps beginning with a step containing pupils from the lowest in the list to 5.0 years, inclusive; then from 5.0 to 5.5, inclusive; and so on to the highest. In these classes was a range of mental age from 53 months to 102 months, or approximately 2 to 1. The lowest mental age was four years and five months, and the highest eight years and six months, a difference of four years and one month. It will be noted that practically half the members of the class had a mental age of less than six years on entering. An inspection of these several groups will show that practically all the near-failures fell in the group with a mental age below five years.

The method of determining the minimum mental age desirable for introducing a child to reading involves certain problems. For example, what reading ability should a pupil have acquired by the end of the year to have achieved a status which may be described as a successful reading experience? Since this matter is one on which opinions may differ, the data from these pupils have been computed on three bases: (1) the percentage of pupils who in the final test achieved a reading-grade score of 1.50 or higher, (2) the percentage achieving a reading-grade score of 1.75 or higher, and (3) the percentage equaling or exceeding 1.95. The last figure represents substantially the norm on the Gates test for the end of Grade I. It should be noted that in the population at large approximately 45 per cent of the pupils would have fallen below a reading grade of 1.95 at the end of Grade I. Table I shows that every pupil achieving

a reading grade of 1.95 or higher is credited with having read a considerable number of books during the year; that, of those who

TABLE I

READING ACHIEVEMENT OF 78 PUPILS IN RAGUSE'S STUDY DISTRIBUTED ACCORDING TO MENTAL AGE

Mental Age (in Months)	Chronological Age (in Months)	Average Reading Grade	Number of Books Read	Mental Age (in Months)	Chronological Age (in Months)	Average Reading Grade	Number of Books Read
102	90	3.23	31	73	76	3.48	37
102	77	3.02	27	73	75	2.88	15
95	113	2.20	14	71	79	2.08	14
92	71	3.25	26	71	79	2.18	19
92	71	3.25	26	71	88	2.21	20
91	69	3.28	31	71	79	2.52	22
90	77	3.18	24	70	75	2.53	18
90	76	3.32	27	70	70	2.60	24
88	87	3.28	36	70	74	2.34	17
88	80	3.47	28	70	68	1.95	8
87	85	2.75	23	69	77	2.90	24
85	83	2.88	18	69	77	2.03	9
84	74	2.80	21	68	76	2.03	16
84	69	2.90	21	68	76	2.57	20
83	77	3.22	31	68	72	2.87	19
83	78	3.15	22	67	80	2.83	26
83	75	2.45	20	67	87	2.50	21
83	79	2.90	19	67	68	2.23	14
83	79	2.57	17	66	82	1.97	8
82	73	2.32	22	66	72	2.23	21
81	74	2.53	24	66	89	2.90	30
80	83	3.00	23	65	74	2.43	31
80	81	3.18	25	65	76	2.82	23
80	87	2.93	26	65	75	1.91	3
80	77	2.26	9	64	73	2.05	9
79	80	2.67	19	64	73	1.85	9
79	72	2.57	23	64	77	2.68	22
77	73	2.73	21	62	76	2.50	21
76	78	2.75	20	62	81	1.98	8
76	78	2.52	20	61	80	1.73	4
75	68	2.62	22	61	70	3.07	27
75	78	3.25	21	60	72	1.90	4
75	88	2.62	20	59	72	0.40	0
75	77	1.65	4	58	90	1.55	2
74	73	2.55	15	55	70	2.58	21
74	73	2.73	22	55	77	1.68	3
73	73	2.73	21	54	71	1.85	8
73	72	3.20	18	54	68	0.00	0
73	72	2.37	14	53	66	0.47	0

reached or exceeded a grade of 1.75, none failed to read a number of books; and that, of those reaching a reading grade of 1.50 or lower, none had a record of extensive successful reading.

From Table I the data in Table II have been assembled, showing the percentages of pupils in the group with stipulated beginning mental age, such as 5.0 or higher, who failed to exceed a reading grade of 1.50, 1.75, and 1.95, respectively. Thus, of all the pupils who had a mental age of 5.0 or higher at the beginning of the year, none made a reading grade at the end of the year below 1.50, 3 per cent made a reading score below 1.75, and 7 per cent made a score below 1.95. Of the children who had a mental age of 5.5 or higher at the beginning of the year, none fell below a reading grade of 1.50, 2 per cent fell below 1.75, and 2 per cent fell below 1.95. Of the

TABLE II

PERCENTAGES OF PUPILS IN RAGUSE'S STUDY WHO FAILED TO ACHIEVE READING GRADES OF 1.50 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	PERCENTAGE OF PUPILS WITH READING GRADES		
	Below 1.50	Below 1.75	Below 1.95
5.0 or above.....	0	3	7
5.5 or above.....	0	2	2
6.0 or above.....	0	2	2
6.5 or above.....	0	0	0

children having a mental age of 6.0 years or higher at the beginning of the year, none fell below a reading grade of 1.50, 2 per cent fell below 1.75, and 2 per cent below 1.95. Of those having a mental age of 6.5 or higher, none made a reading grade below 1.95.

As already stated, decision concerning the level of achievement in reading which should be considered optimum or satisfactory is arbitrary. If we assume that a program is, under practical conditions, highly satisfactory when no more than 10 per cent of the pupils fall below a reading grade of 1.95, it appears that in the case of this group a mental age of 5.0 is satisfactory. Only 7 per cent of the pupils with a beginning mental age of 5.0 or higher fell below a final reading grade of 1.95. Since defects in vision and in hearing, poor previous training, illness, absence from school, and many other factors, as well as inadequate mental age, are known to result in

inferior reading attainments, it will be obvious that the record in this class was remarkably good. Since substantially all the seriously backward cases fell in the group with a mental age of five years or less at the beginning of the year and since very few of the seriously backward pupils appeared among the higher mental ages, the writer considers it entirely justifiable to say that a mental age of 5.0 at the beginning of the year, other things being satisfactory, is sufficient for learning to read satisfactorily. It should be noted that the achievement of this class as a whole, indeed the achievement of the half of the class with the lowest mental ages, was superior to the attainment of average pupils in typical American schools.

SECOND GROUP

A second group of pupils was taught in a New York City school by teachers who were judged to be more expert than the average and who used a considerable body of experimental materials developed by the writer and his colleagues. These materials consisted of various types of practice and seatwork, teach-and-test materials, and supplementary easy reading material, largely limited to the vocabulary used in the basal books. The class consisted of forty-eight pupils, for forty-five of whom complete records were obtained. A summary of the pertinent data is contained in Table III. The first part of the table gives a summary of the data for the pupils arranged in a mental-age hierarchy by half-year units. The second part of the table is a summary identical in form with that presented in Table II. In this class pupils with a mental age of less than five years were not so successful as in the class reported by Raguse. One out of five fell below a reading grade of 1.50, two fell below 1.75, and three below 1.95. When all the pupils who began with a mental age of 5.5 or higher are considered, it is found that only 3 per cent fell below 1.50, 9 per cent below 1.75, and 12 per cent below 1.95. The records for the pupils with a minimum mental age of 6.0 are similar. To the writer it appears reasonable to state that this program was satisfactorily adjusted—some allowance being made for the practical limitations due to absence from school, uncorrected defects, and other constitutional limitations—to pupils with a mental age of 5.5 or higher. In other words, it is a program which represents a diffi-

culty level about one-half year higher than that employed for the first group.

In this group the correlation between mental age and reading grade was .55, somewhat lower than the .62 found for the Raguse group.

TABLE III

NEW YORK PUPILS TAUGHT WITH SPECIALLY PREPARED MATERIALS WHO FAILED TO ACHIEVE READING GRADES OF 1.50, 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	NUMBER OF PUPILS	READING GRADE BELOW 1.50	READING GRADE BELOW 1.75	READING GRADE BELOW 1.95
		Number of Pupils		
7.5–8.0	2	0	0	0
7.0–7.4	3	0	0	0
6.5–6.9	8	0	1	1
6.0–6.4	9	1	1	1
5.5–5.9	10	0	1	2
5.0–5.4	8	0	1	3
4.5–4.9	5	1	2	3
		Percentage of Pupils		
5.5 or above	32	3	9	12
6.0 or above	22	5	9	9
6.5 or above	13	0	8	8
7.0 or above	5	0	0	0

THIRD GROUP

A third group consisted of forty-three pupils in a rather superior urban public school. In this class very good teaching was conducted with a better-than-average amount of typical classroom reading matter and other equipment, but the teacher did not have any large amount of the specially prepared types of teach-and-test material employed in the two groups previously considered. Table IV gives a summary of the data for forty pupils in the same form as that employed in Table III. In this case poor reading appeared among the pupils with mental ages below 6.0. For the entire group with

mental ages of 5.5 or above, 14 per cent earned a reading grade below 1.75 and 27 per cent below 1.95. When the group is restricted to those with mental ages of 6.0 or higher, only 5 per cent fell below a reading grade of 1.50, 10 per cent below 1.75, and 20 per cent below 1.95. Figures for the higher mental-age groups were greatly affected by two pupils in the upper mental ages who fell below the average reading score. These represent instances of special factors contributing to reading difficulty which may, and do, appear at all levels. If some allowance is made for this possibility, it is reasonable to say that the program in this case was fairly well suited for all pupils with a beginning mental age of six years or higher. In other words, the program used with this group requires a mental age a full year in advance of that used in the Raguse group and a half-year in advance of that used in the New York City group.

TABLE IV

URBAN PUPILS IN SUPERIOR PUBLIC SCHOOL TAUGHT WITHOUT LARGE AMOUNT OF SPECIALLY PREPARED MATERIALS WHO FAILED TO ACHIEVE READING GRADES OF 1.50, 1.75, AND 1.95 DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	NUMBER OF PUPILS	READING GRADE BELOW 1.50	READING GRADE BELOW 1.75	READING GRADE BELOW 1.95
		Number of Pupils		
7.5–8.0	1	0	0	1
7.0–7.4	3	0	0	0
6.5–6.9	7	0	1	1
6.0–6.4	9	1	1	2
5.5–5.9	9	1	2	4
5.0–5.4	7	1	3	5
4.5–4.9	4	2	3	4
		Percentage of Pupils		
5.5 or above	29	7	14	27
6.0 or above	20	5	10	20
6.5 or above	11	0	9	18
7.0 or above	4	0	0	25

The correlation between mental age and reading grade in this

group was .44. It will be noted that, thus far, the better the program is suited to the pupils of lower mental age, the higher the correlation between mental age and reading ability at the end of the year.

FOURTH GROUP

The fourth group comprises eighty pupils from two public-school classes in a metropolitan area. Both classes were large; the teachers

TABLE V

PUPILS IN METROPOLITAN SCHOOLS TAUGHT WITH INFERIOR MATERIALS WHO FAILED TO ACHIEVE READING GRADES OF 1.50 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	NUMBER OF PUPILS	READING GRADE BELOW 1.50	READING GRADE BELOW 1.75	READING GRADE BELOW 1.95
		Number of Pupils		
8.0–8.4	1	0	0	0
7.5–7.9	3	0	0	1
7.0–7.4	7	1	1	3
6.5–6.9	14	1	3	5
6.0–6.4	17	3	5	8
5.5–5.9	17	2	4	9
5.0–5.4	13	4	6	11
4.5–4.9	8	3	5	8
		Percentage of Pupils		
5.5 or above	59	12	22	44
6.0 or above	42	12	21	40
6.5 or above	25	8	16	36
7.0 or above	11	9	9	36

were judged to be somewhat below the average of those in the system; and the reading materials and other equipment were inferior. The classes were taught largely by mass methods, with much oral instruction and little individual or self-manageable work. There was less attempt than usual to adjust instruction to individual needs.

The data in Table V indicate that in this group a larger proportion of the pupils fell below reading grades of 1.50 and 1.75 than in the other groups. It will be noted also that some pupils from all the

mental-age categories except the two highest fell below a reading grade of 1.50. Of the pupils with a mental age above 6.5, 8 per cent achieved a reading grade below 1.50, 16 per cent below 1.75, and 36 per cent below 1.95. Of those having a mental age of 7.0 or higher, however, only 9 per cent fell below 1.75, although 36 per cent fell below 1.95. It is, of course, difficult to designate a satisfactory mental-age level for instruction which was apparently of rather unsatisfactory general character. If a reading grade of 1.75 is set up as a reasonably satisfactory achievement at the end of the year, 84 per cent of the pupils with a mental age above 6.5 would have been rated as successful and 91 per cent of those with a mental age above 7.0. In other words, it would appear that on this rather conservative basis a mental age of somewhere between 6.5 and 7.0 would be necessary for a reasonable assurance of success in reading.

The correlation between mental age and reading grade in this group was .34.

CONCLUSIONS

These representative data point rather convincingly to certain conclusions concerning the relation between mental age and success in beginning reading. In the first place, they indicate clearly that statements concerning the necessary mental age at which a pupil can be intrusted to learn to read are essentially meaningless. The age for learning to read under one program or with the method employed by one teacher may be entirely different from that required under other circumstances. In the first of the groups compared, in which modern and effective instruction, well adjusted to individual differences, was provided, a mental age of 5.0 appears to be sufficient. Of the children equaling or exceeding a mental age of five years in this group, none appeared to be seriously retarded and only 7 per cent fell below a reading grade of 1.95, which is the average reading achievement for pupils in America at large at the time in the school year that the measurement was made. A second group was found in which the minimum reading age was about a half-year higher. A third group required a mental age of about 6.0 years, or one full year higher. In a fourth group, representing the opposite extreme of the first, children with a mental age of 6.5 fared none too well, and some of those with mental ages of 7.0 or above had difficulty. Of the lat-

ter, 36 per cent failed to exceed the national norms. Obviously, therefore, general statements that any given mental age should be achieved by a pupil before he begins to learn to read are misleading. The question must be asked: How and what is the pupil to begin to read?

The foregoing conclusion should not be interpreted to imply that mental age is of no significance in learning to read. In the several groups considered in this article, the correlations between mental age and reading grade were .62, .55, .44, and .34, respectively. These coefficients show, as do the more detailed data given in the tables, a substantial but variable relation between mental age and reading achievement. The most significant finding is the fact that the correlations between mental age and reading achievement were highest in the classes in which the best instruction was done and the lowest in those in which the poorest instruction was provided. More specifically, the magnitude of the correlation seems to vary directly with the effectiveness of the provision for individual differences in the classroom. When the teacher uses a mass method, with little or no provision for helping individuals in their special needs, with a program which would appear to be pointed to those with a certain equipment and background, these pupils seem to get on rather well but others encounter difficulty. It should be noted that in this case factors other than mental age play a considerable role, since pupils with relatively high mental ages fail occasionally to learn to read especially well. In such a group the correlation apparently is low partly for the reason that the instruction fails to give each pupil an opportunity to apply his mentality most effectively. If he is to be enabled to do so, attention must be given to his particular difficulties and limitations as well as his special aptitudes and interests.

The preceding discussion, furthermore, should not be considered as antagonistic to the plan of attempting to determine the mental-age level or other characteristics of the pupil needed for making a successful beginning in reading. The study reveals the necessity of determining these factors in relation to the particular program into which the pupils are to be introduced. The writer believes, in fact, that this consideration is not only an important but a necessary phase of normal instruction. That is to say, he believes that it is

necessary for each teacher to understand the mental age and other qualifications required for successful pursuance of the program that she will put into effect. One of the reasons for the success of the programs used with the first two groups is the fact that the abundant use of individualized, self-diagnostic materials enabled the teacher to discover the particular needs of the individual pupils and to make adjustments to them, whereas in the fourth group the use of the mass method resulted in a disregard of all sorts of individual aptitudes, difficulties, failures, absence from school, and other factors which determine achievement. The study shows that the determination of the optimum mental age and other factors in reading readiness is not so simple as some recent pronouncements seem to imply. It is impossible to set up, once and for all, a stipulated list of particular requirements for successful work in beginning reading in general. Reading is begun by very different materials, methods, and general procedures, some of which a pupil can master at the mental age of five with reasonable ease, others of which would give him difficulty at the mental age of seven. It is necessary for each teacher to determine exactly what mental age, what background of previous experience, what special aptitudes her particular program requires.

Finally, it should be made clear that the results presented in this report do not answer the question: At what age is it best to introduce reading to pupils? Although the data seem to indicate that it is *possible* to organize materials and methods to teach children to learn to read at a mental age of 5.0 or higher, they do not, in any way, imply that it is *desirable* to do so. Decision on the optimum time of introducing reading to pupils must be based upon investigations of the value of this activity at different stages of development. It would be necessary to determine the general educational, personal, and social effects of introducing reading at different stages by methods so well adjusted to the pupils that they would all learn to read successfully.

CONFLICTING VIEWS ON FEDERAL AID

NELSON B. HENRY
University of Chicago

The resolutions of the National Education Association and of the Department of Superintendence adopted at their conventions in 1936 and the activities of these organizations in support of federal aid for schools are evidence that the leadership of these influential educational associations is largely favorable to this cause. The reports of the National Advisory Committee on Education in 1931[1] and the National Conference on the Financing of Education in 1933,[2] to mention only two of a number of nationally representative agencies which have been specifically concerned with federal relations to education, are emphatic in their advocacy of federal participation in the support of state school systems. It is unnecessary to refer to the pronouncements of the numerous state and regional groups which support the demands of the schools for substantial contributions from the resources of the federal government. The representative character of the agencies designated leaves no doubt of the existence of a widespread favorable attitude on this question among the leaders in the profession.

It is not to be assumed, however, that the several persons supporting the recommendations of a committee or the resolutions of an association favorable to federal aid are unanimously in accord with the specific stipulations of such recommendations or resolutions. In general, the action of any organized group represents a compromise or an adjustment of more or less divergent views on the part even of those who have formulated the proposal. Moreover, with the practical problems involved in securing legislation providing for

[1] National Advisory Committee on Education, *Federal Relations to Education*, Part I. Washington: National Advisory Committee on Education.

[2] Joint Commission on the Emergency in Education, *Report of the National Conference on the Financing of Education*. Washington: National Education Association, 1933.

federal aid, prominent leaders of many of the associations now backing this movement are frequently required to assume the role of sponsor for a measure which has some promise of successful issue at the hands of Congress even though they do not willingly approve some of the provisions contained in the proposal. The real attitudes of individual leaders who have been prominently identified with recent efforts to secure federal aid for state school systems is therefore best determined by reference to individual expressions of opinion. These individual opinions range all the way from an unqualified approval of practically anything that bears the label of federal aid to an equally unqualified objection to any extension of the existing program of federal aid on a permanent basis.

An interesting example of the lack of unanimity on the part of leaders in the field of education is found in published statements of three former United States Commissioners of Education. Former Commissioner Tigert opposes federal support for public education for the following reasons:

1. Federal money would be followed by federal interference. Public education is, and should remain, a state and local responsibility.

2. The use of federal money for support of schools would decrease local support. The net amount available to schools would be no greater as local support would vanish about as fast as federal money became available. There would be a diminishing interest in local responsibility and other evils always attendant on paternalism.

3. Every state in the Union has adequate resources to provide a satisfactory, uniform system of schools.[1]

The late William John Cooper offered the following conditional approval of a program of federal aid.

In general I favor federal support for schools if this support is a flat sum paid over to each state to be distributed by the superintendent of schools of the state in the same way that the state money is distributed.

I believe that this depression has shown that some states, such as Alabama in which a large state fund is supplied, are badly hurt by the depression. I think only federal aid can help a situation of this sort. I believe the next Congress should act, granting aid to the states that are hardest hit and holding out a promise of permanent assistance to states that reorganize their district plans in such a way as to reduce the number of districts to approximately one-tenth,

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (February, 1934), 36.

except where the county is used as the basic district. Also there should be a reorganization of their state departments in order that these may be appointed rather than elected; for an indefinite term rather than for a specific number of years.

When the emergency is over and states have reorganized in this way I suggest that a permanent federal fund be established, from which perhaps $25 per pupil would be made available to each state.[1]

Former Commissioner Zook feels that recent developments in the tax problems of the federal government and the states probably indicate the necessity for increased appropriations from federal resources in support of state school systems. "I am convinced," he says, "that if the federal government continues to levy these more modern forms of taxation, as it alone can do most effectively, it follows as clearly as can be that some proportion of the proceeds of these taxes should be returned to the states for the support of state and local governmental functions, including schools."[2]

On the point of the exercise of control in consequence of these grants-in-aid, the two commissioners who favor federal aid under specified conditions are not entirely in agreement as to the method by which such control should be exercised. Cooper's statement seems to imply that certain stipulations of the statute should be met by the states as a condition before the federal money is received. Zook objects to the plan of writing the specifications into the law and urges that discretionary authority be vested in some agency of the federal government in order that the federal funds may be used in such a manner as to insure the most favorable returns from the increased support to be provided for the schools. In answer to the criticisms of persons who have expressed abhorrence at the idea that any office or bureau in Washington might exercise some measure of control over so important a function as education, he says, "In the long run I am convinced that we shall have much more federal control of education through regulations inserted in the law than from a federal Office of Education which is clothed with discretionary power in the distribution of federal funds."[3]

[1] *Ibid.*, p. 37.

[2] George F. Zook, "Federal Aid to Education," *School and Society*, XL (July 14, 1934), 43.

[3] *Ibid.*, p. 48.

The differences in the opinions held by these three prominent leaders in education do not reflect the full divergence of view that is manifest in the public statements of active leaders in general at the present time. When any considerable number of statements of leaders in the field of education are considered, one finds it difficult to choose from among the varying viewpoints a selected few which may be presented with some degree of assurance that they represent the attitudes of a reasonable number of the important leaders with respect to the various problems involved in a permanent program of federal aid. Apart from those who apparently are willing to accept federal aid in any form and under any conditions and those others who apparently are unwilling to consider any additional grants from the federal government for such reasons as those cited by former Commissioner Tigert, some leaders are found to be favorable to federal aid if it is accompanied by at least a measure of control over the use that is to be made of the money thus acquired, while others contend that the federal government should recognize its responsibility to the states and to the schools by generous contributions but that it is not the province of the federal government to dictate the manner in which the money may be spent. Other leaders are equally insistent that the claim for federal aid is valid from every point of view but that it would be better not to receive any additional aid from the federal government than to receive it under conditions which might result in an extension of federal authority over the organization or administration of the public schools. T. C. Holy, obviously moved by these conflicting desires, has stated his position as follows:

> I am opposed to a federal subsidy for education as a permanent policy unless it carries with it a careful check or appraisal on the use of this subsidy. This implies a control by the federal government, the wisdom of which seems doubtful. Such control, so far removed from the teachers and pupils, tends toward an inflexible organization not sensitive to social changes and varying conditions. It also creates a powerful instrument, which has been used in other countries to control public opinion.[1]

The argument sometimes runs that the breakdown of state tax systems has created a necessity for the federal government to use

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (April, 1934), 16.

its superior taxing facilities for the advantage of an indispensable social institution, while another contention is that federal aid, if any, should be so administered as to stimulate sensible reform of state tax systems. Some educators see in the various proposals for federal participation in the support of the public schools a probable stifling and menacing effect on community interest in public education; others apparently look on federal aid as a vitalizing stimulus to a fast-declining sense of interest and responsibility on the part of the average American community in the welfare of its schools. These and other points of difference are so emphasized and so magnified in the various expressions of opinion among persons who have studied the problem thoughtfully that it is not surprising to find even the veteran Payson Smith explaining his position in the following terms.

> The whole matter of federal aid for the support of education is so much in flux that I am frankly not able to reach a definite conclusion as to what the permanent policy should be. I am studying the question constantly. In general, I believe that some federal support of education will not only be desirable but may become necessary.[1]

Since federal aid in its larger aspect is very directly related to the support of elementary and secondary education, the views of city school superintendents as a group have a peculiar significance. While these views are not recorded as yeas and nays with regard to any specific proposal, many of these men have discussed the problem from one angle or another. The early issues of the *Nation's Schools* in 1934 carry a symposium in which the views of a number of them are stated. Here again no crystallization of opinion is found. Cody (of Detroit), Potter (Milwaukee), Stetson (Indianapolis), and Stouffer (Wilmington, Delaware), among others, are definitely opposed to federal aid. Gosling and Melcher, of Akron, Ohio, and Kansas City, Missouri, favor the adoption of a program of federal aid embodying no conditioning requirements. Glenn, of Birmingham, Alabama, does not fear the imposition of unfavorable requirements on the part of the government; rather he thinks that there might be some advantages in the types of standardization that would likely ensue. Anderson (Omaha), Broome (Philadelphia), and Sutton (At-

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (May, 1934), 22.

lanta) are agreed that certain conditions should underlie the federal grants, but they suggest different reasons and considerations as bases of the control to be exercised.

The interest and the responsibility of the federal government with respect to the support of public schools have been the subject of discussion by other leaders of the profession, including some careful students of administrative problems who are not directly responsible for the administration of school systems. There are also conflicts among the views advanced by these representatives of the profession, with consequent variability in motives and methods advocated as appropriate bases of a program of federal aid. Thus, Mort's extensive researches in school finance have led him to formulate a program[1] of federal aid which undertakes to determine mathematically the equitable shares of the various states in the sum which will have to be provided by the federal government to enable each state to maintain an acceptable school system in view of its peculiar requirements and resources. By means of this predetermination of the amount of aid to be provided for each state, Mort seeks to avoid the disadvantages of excessive or wavering forms of control.

In direct opposition to fundamental features of the Mort proposal, Judd objects pointedly to any immediate definition of the form of continuing federal subsidies for schools and pleads for an experimental program, which in time may reveal the procedures and the conditions under which the federal grants may be administered so as to provide aid for the most needy communities and so as to insure that all money furnished by the federal government will be used to improve the schools and not to perpetuate their deficiencies. The following excerpts from his address at the St. Louis convention of the Department of Superintendence will indicate the substance of his view.

With the facts which have been cited in mind, I advocate a period of experimentation during which the intelligence of American educators and governmental officials will be devoted to a careful study of the effects of new federal

[1] *Federal Support for Public Education:* A Report of an Investigation of Educational Need and Relative Ability of States To Support Education as They Bear on Federal Aid to Education. Made under the direction of Paul R. Mort and under the auspices of Columbia University Council for Research in the Social Sciences. New York: Teachers College, Columbia University, 1936.

appropriations for the support of public schools of the elementary and secondary levels. The purpose of this experimental endeavor should be the discovery of the best possible methods of equalizing educational opportunities in different sections of the United States. I advocate the distribution of federal funds first and in largest measure to those states in which the average income is low. I advocate that experimentation begin with some such modest sum as $50,000,000 or $75,000,000. I mention these sums because they were the amounts discussed and approved as emergency funds by a competent committee which was convened by the United States Commissioner of Education in 1933. The distribution must, in my judgment, be left to the discretion of a properly constituted federal authority, preferably a small commission made up of experienced educators and presided over by the United States Commissioner of Education, which shall pass on the requests made by various states for federal aid. . . . .

If experience accumulated during experimentation with the equalization fund justifies the federal government in taking over a share of the support of schools in all the states, then federal grants should be made the basis of certain demands which will assure the nation of proper conduct of its schools.[1]

The gradual development of a program of federal aid and the function of control as an element of this program are similarly stressed in a statement by Fred Engelhardt. Citing as an analogy the gradual development of different plans of state aid to local school districts with consequent increase in the exercise of state control, Engelhardt suggests that "the states are now passing through a similar evolution with respect to the place of the federal government in educational matters." What we may look forward to in the immediate and the more remote experiences with federal aid is described in the following paragraphs.

It will require some time for the necessary readjustment in thinking to take place, the same as it did in the case of state support. It will be impossible to operate for any length of time on the theory that the federal government may grant money to the states for educational purposes without federal control. Time and past experience will show that certain sections of the country will profit at the expense of other sections under such a plan. In other words, the people will ask: Why allow an area of the country to continue as a state when it cannot exist economically as a self-supporting unit? The doctrine of state rights will then be bitterly contested.

As the federal government assumes its responsibility for public education

[1] Charles H. Judd, "Federal Support of Public Education," *Official Report of the Department of Superintendence, 1936*, pp. 105–7. Washington: Department of Superintendence of the National Education Association, 1936. (Also in *Elementary School Journal*, XXXVI [March, 1936], 507–10.)

it will be necessary to establish that balance between support and control which is essential to the maintenance of efficient and economical schools. It will be discovered that certain educational activities are best carried on by the federal government; that other activities are handled best by the state, and that still other activities are rightfully the responsibility of the local school divisions within the state. Is it mere speculation to imagine that there will be fewer than forty-eight states when the ideal plan of public education is eventually evolved?[1]

The last two statements of opinion seem to indicate clearly enough the logical next step in the movement toward federal aid for the public schools. The differences of opinion still prevailing among careful students of school administration as well as among those who hold positions of responsibility in important school systems point conclusively to the need for a period of adjustment and an experimental attack on the problems involved in a program of permanent aid. It is obvious that the safest course to pursue from this point would be to recognize the value of a period of adjustment and to seek the immediate inauguration of a flexible program under the guidance of a competent agency endowed with the means and the authority to determine by experimental methods the amount and the form of federal support which will best serve the interests of public education in this country.

[1] Fred Engelhardt, "Federal Support for Public Schools Is Inevitable," *Nation's Schools*, XIII (February, 1934), 47.

MANUSCRIPT WRITING—SOME RECENT INVESTIGATIONS

CARLETON WASHBURNE AND MABEL VOGEL MORPHETT
Public Schools, Winnetka, Illinois

Manuscript writing has made its way into the primary grades so positively and with such a weight of scientific evidence in its favor that a discussion of its merits at that level is no longer necessary. Until recently, however, evidence has been very meager on the question of whether children should change from manuscript to cursive writing and, if so, at what time and by what means. Gates and Brown[1] showed that, when children in a New York school were given training in cursive and in manuscript writing for one semester, the children in the fourth, fifth, and sixth grades showed a greater gain in cursive writing. The experiment, however, is scarcely germane to the general problem, since the question is not: What will happen if children who have been trained in cursive writing for the first several years of their school life are given one semester's instruction in manuscript writing? The question is: Will children trained in manuscript writing from the beginning write more slowly as they reach the higher grades? Gray[2] showed that, for ten adults who knew how to do manuscript writing, the speed of cursive writing was greater. He did not, unfortunately, inquire how long these adults had been doing manuscript writing or whether they used it habitually. Obviously, a person who had been trained all through school to use cursive writing and who used cursive most of his adult life, learning manuscript for teaching purposes, might be expected to write manuscript more slowly. Again, Gray's investigation does not answer the question whether adults who use manuscript habitually write it less rapidly than cursive.

[1] Arthur I. Gates and Helen Brown, "Experimental Comparisons of Print-Script and Cursive Writing," *Journal of Educational Research*, XX (June, 1929), 1–14.

[2] William Henry Gray, "An Experimental Comparison of the Movements in Manuscript Writing and Cursive Writing," *Journal of Educational Psychology*, XXI (April, 1930), 259–72.

The present article sets forth investigations organized to answer the following questions: (1) How does the rate of writing manuscript under test conditions compare with national norms for the writing of cursive at the various grade levels? (2) What is the difference in rate of writing by high-school pupils who have been taught manuscript writing and who use it habitually and that of pupils who have always used cursive writing? (3) Among adults who have used manuscript writing habitually for at least two years, is the rate faster or slower than that for comparable adults who use cursive writing? (4) Are children who are taught to write manuscript handicapped in the reading of cursive after they reach eighth grade and high school?

To these four questions this article gives statistical answers. There are three other questions which it will attempt to answer in terms of experience: (1) Is there lack of individuality and personality in manuscript writing? (2) If a child is going to transfer from manuscript to cursive writing, when can the transfer best be made and by what means? (3) Are manuscript-writing signatures valid in business transactions?

Since Voorhis[1] has summarized all important investigations up to 1931, no reference will be made here to earlier investigations, especially since, except for the two mentioned in the introductory paragraph, the writers know of no recent and significant investigations bearing on the questions here raised.

Manuscript writing has been taught in the Winnetka public schools since 1924. At that time the children entering first grade and many of the children in second grade were taught manuscript. Each year, as these children moved up a grade, manuscript writing moved up with them, until it was the only kind of writing taught throughout the schools. The children who were in that first class have now graduated from high school, and all children who have gone through the Winnetka schools since that time have been trained in manuscript writing, the majority of them using this kind of writing right through their high-school life.

[1] Thelma G. Voorhis, *The Relative Merits of Cursive and Manuscript Writing*. Lincoln School Research Studies. New York: Lincoln School of Teachers College, Columbia University, 1931.

To check the relative rates of manuscript and cursive writing at the various grade levels has therefore been a comparatively simple matter in Winnetka, but we wished to compare with other schools as well. A list was therefore secured of schools in various parts of the United States that taught manuscript writing, and each was asked to give a timed test by having the children write "Mary had a little lamb" for two minutes continuously.

Table I shows the results in comparison with the Ayres Handwriting Scale. It will be noted that at the second-grade level Winnetka children are very much slower than the Ayres standard and

TABLE I

RATE OF WRITING IN WINNETKA SCHOOLS AND OTHER SCHOOLS WHERE MANUSCRIPT WRITING IS TAUGHT COMPARED WITH AYRES STANDARD FOR CURSIVE WRITING

Grade	Number of Children Tested			Average Number of Letters Written per Minute			
	Winnetka Schools	Other Schools	All Schools	Winnetka Schools	Other Schools	All Schools	Ayres Standard
I	177	673	850	12.5	16.4	15.9	.....
II	133	838	971	17.7	27.3	26.7	31
III	188	617	805	33.5	36.8	36.4	44
IV	125	254	379	41.0	42.5	42.0	55
V	202	237	439	52.0	48.7	49.8	64
VI	179	194	373	62.9	62.6	62.8	71
VII	164	76	240	80.8	78.9	80.1	76
VIII	125	35	160	84.5	90.0	85.1	79

that the children in the other schools are slightly slower. This difference is probably due to an effort on the part of Winnetka teachers to emphasize form rather than speed when the children are learning to write. By the end of the third grade the Winnetka children are almost equal to those of the other schools, but both groups are below the Ayres standard. The same situation is found at the end of the fourth grade. At the end of the fifth grade Winnetka children have overtaken the children in the other schools but are still distinctly behind the Ayres standard. This situation still holds, but to a less degree, at the end of the sixth grade. By the end of the seventh grade, however, both the Winnetka children and the children in the

other schools have exceeded the Ayres standard and continue to do so at the end of the eighth grade.

Apparently, therefore, the development of speed in manuscript writing is, under current practice, somewhat slower than in cursive writing. We say "under current practice" because we believe it is the tendency for teachers of manuscript writing (we know it is true in Winnetka) to be much more meticulous about letter formation than they were in the teaching of cursive writing. They seem to feel that, once the manuscript forms are well established, the speed will take care of itself. The results in the seventh and the eighth grades seem to vindicate this point of view.

Willard Beatty confirms these findings in general as to the seventh and the eighth grades, although the rates that he reports are somewhat slower than those found in this investigation.[1]

The second question has to do with the rate of writing after children reach high school. Children from Winnetka attend the New Trier Township High School, together with children from three neighboring communities and a sprinkling of children from a variety of other elementary schools. The majority of children not trained in Winnetka have had the usual courses in cursive writing and continue this kind of writing in the high school. The majority of Winnetka children have had training in manuscript writing throughout their elementary-school careers and continue to use it right through high school. It was therefore a simple matter to give a speed test in writing to several hundred children at New Trier High School, in which each child would write according to his custom. Each child was asked to indicate on his paper whether he wrote manuscript all the time or part of the time or never. The records of children who wrote manuscript part of the time were disregarded, as there were no data to indicate whether "part of the time" meant occasionally or most of the time or whether the pupils had been trained in manuscript or cursive writing. Those who said they wrote manuscript part of the time, however, sometimes wrote cursive in the test and sometimes wrote manuscript. Such pupils who wrote cursive in the

[1] Willard W. Beatty, *More Verse:* Another Anthology from the High Schools Handcopied in Manuscript Writing. Bronxville Schools Bulletin No. 25. Bronxville, New York: Bronxville Public Schools, 1935.

test wrote more rapidly than those who wrote manuscript (median number of letters written per minute—112 for cursive and 97 for manuscript).

The data in Table II bear out the seventh- and eighth-grade data and indicate that, once the children have learned manuscript and have used it consistently through their school work, it tends to be slightly faster than cursive, certainly not slower.

The third question has to do with rate of manuscript writing in adult life as compared with cursive. Here we were handicapped by not having available any subjects who had used manuscript from

TABLE II

COMPARISON OF RATES OF WRITING OF HIGH-SCHOOL PUPILS WHO HABITUALLY USE MANUSCRIPT OR CURSIVE WRITING

	Manuscript Writers	Cursive Writers
Number of children	78	214
Number of letters written per minute:		
Lower quartile	104	99
Median	116	113
Upper quartile	131	126

childhood. We therefore had to test adults who had received their early training in cursive writing and who had used it habitually until some time during adult life and had then taken up manuscript writing and habituated themselves to its use. The only requirement was that the subjects should have used manuscript for practically all their writing for at least two years.

The subjects used for this experiment were teachers in the Winnetka public schools, many of whom have, in connection with their teaching, learned manuscript writing themselves and have become converted to it to the point of using it exclusively. Some teachers use manuscript part of the time and cursive part of the time, but, for the same reason that we discarded such data from the high-school study, we discarded them from the study of adults: there was no way of determining how much more the teachers use one kind of

writing than the other. It may be said in passing, however, that, of those who use manuscript part of the time, the records showed the cursive to be faster (median number of letters written per minute—116 for cursive and 103 for manuscript).

Table III shows the rate of cursive writing and manuscript writing on the part of both groups of teachers—those who use manuscript habitually and those who use cursive habitually. Naturally, those who use manuscript writing habitually know how to write cursive, having done so most of their lives. Those who use cursive habitually, on the other hand, have had no training in manuscript

TABLE III

COMPARISON OF RATES OF WRITING MANUSCRIPT AND CURSIVE BY ADULTS

KIND OF WRITING	NUMBER OF SUBJECTS	NUMBER OF LETTERS WRITTEN PER MINUTE		
		Lower Quartile	Median	Upper Quartile
Manuscript by those habitually using manuscript	15	113	122	136
Cursive by those habitually using cursive	24	125	133	147
Manuscript by those habitually using cursive	24	90	110	120
Cursive by those habitually using manuscript	15	108	121	127

and would naturally be expected to make poorer scores in manuscript than the manuscript writers would in cursive. The experiment was conducted by having the teachers write a sentence over and over for thirty seconds in manuscript, then for thirty seconds in cursive, then a second thirty seconds in manuscript, and a second thirty seconds in cursive.

Here it is seen, as might well be expected, that adults who use manuscript habitually write cursive faster than those who write cursive habitually can write manuscript: one is a trained group and the other an untrained group. The real comparison is shown in the first two lines of the table, where it is seen that those teachers who use cursive habitually write somewhat faster than those who use

manuscript habitually—11 or 12 letters a minute being quite consistently the difference at the lower quartile, the median, and the upper quartile. Willard W. Beatty states, "With adults, the average rate of speed for good, legible handwriting of either type is in the neighborhood of 122 letters per minute."[1] This rate corresponds to that of the Winnetka teachers who habitually use manuscript but is slower than the rate of the teachers who always use cursive, perhaps because the cursive writers were not trying to do good legible cursive but were writing as fast as they could. There are two explanations for the difference in the results of the test of adult teachers and the test of high-school pupils without assuming that manuscript is inherently any slower than cursive at the adult level. One is the fact, already mentioned, that the teachers who now use manuscript writing habitually had been brought up using cursive writing and had certainly written cursive for many more years than they had written manuscript. Another is that the majority of Winnetka teachers who use manuscript habitually are teachers in the lower grades, where they are continually putting careful models on the blackboard and are emphasizing form rather than speed. The majority of those using cursive habitually are upper-grade and junior high school teachers (or kindergarten and physical-education teachers), most of whom do not teach penmanship at all and who therefore are no longer emphasizing form.

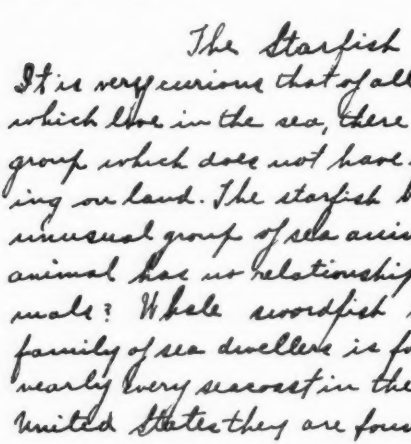
It would not, therefore, be safe to reason from the results of this test of Winnetka teachers that children trained in manuscript writing and carrying it on into adult life will write less rapidly than children using cursive. Both the seventh- and eighth-grade data and the high-school data would seem to contradict this reasoning. The only safe conclusion is that an adult who has used cursive writing most of his life may expect to write a little more slowly if he changes over to manuscript, even after two or more years of the habitual use of manuscript, particularly if he is a teacher of manuscript writing who is continually placing careful models on the board for children.

Incidentally, if the combined time of the person writing in cursive and the person reading what has been written were compared with

[1] Willard W. Beatty, *op. cit.*, p. 4.

the combined time of the person writing in manuscript and the person reading that, there is no doubt in the minds of the writers that the time-saving in manuscript writing would be overwhelming. However, no statistical data on this point are available.

Our fourth question is whether children trained in writing manuscript can read cursive as well as do children trained in writing cursive. Again children at the New Trier Township High School were used as subjects.


The Starfish

It is very curious that of all the animals which live in the sea, there is only one group which does not have relatives living on land. The starfish belongs to this unusual group of sea animals. What sea animal has no relationship to land animals? Whale swordfish starfish. This family of sea dwellers is found along nearly every seacoast in the world. In the United States they are found chiefly in

FIG. 1.—Specimen of writing (reduced by one-third) used in testing the ability to read cursive by pupils trained to use manuscript writing.

In order to get a sample of cursive writing that would be more or less typical, we asked all the members of the Winnetka Rotary Club to write in their ordinary handwriting the first part of the song "America." The samples were rated on the Ayres Handwriting Scale by four teachers independently. The paper receiving the median rating happened to be that of the man who supervises physical education in the Winnetka schools. A bit of his writing is reproduced in Figure 1. We asked this man to copy Test Six of the Iowa Silent Reading Test, Form A. We then reproduced his paper photostatically, with the permission of the publishers, and gave this test to the children at New Trier High School, having each child indicate on

the test whether he had always used manuscript writing or had always used cursive. It was on the back of this same reading test that the children wrote their speed samples in manuscript or cursive.

The results of this test are shown in Table IV, the scores being in accordance with the directions for the Iowa Silent Reading Test. For those who used manuscript part of the time and cursive part of the time, the reading rate was somewhat faster (median—19.1). The slight difference in Table IV is in favor of the cursive writers but is not serious enough to be a handicap since there are few times in life when the ability to read one more line in two minutes is vital. Nevertheless, on the basis of such studies, the Winnetka public

TABLE IV

COMPARISON OF RATES OF READING CURSIVE WRITING BY HIGH-SCHOOL PUPILS TRAINED IN WRITING MANUSCRIPT AND CURSIVE

	Manuscript Writers	Cursive Writers
Number of children	80	215
Reading-test score:		
Lower quartile	14.0	14.6
Median	16.9	18.1
Upper quartile	21.8	23.5

schools have introduced a definite course in the reading of cursive at the end of the fifth grade. The children who have had this course had not yet reached high school when these studies were made, but they have been tested in eighth grade and compared, on the same test, with children of the same age in a neighboring community who always write cursive. The results are shown in Table V. Apparently, a little training in the reading of cursive completely wipes out the small handicap shown in Table IV.

There would seem, consequently, to be no evidence to indicate the necessity for changing from manuscript to cursive writing. The advantage of manuscript from the standpoint of superior legibility has never been challenged by anyone who has any acquaintance with the product. Probably, for the sake of scientific completeness, the

Iowa Silent Reading Test should be copied by a child of median ability in cursive writing and by a child of median ability in manuscript writing, and the results checked in terms of the speed with which the writing can be read. It would be a comparatively easy experiment, but we in Winnetka have never bothered to try it, nor wanted to spend the money on the test materials, when the most casual acquaintance with the two types of writing makes it evident to anyone that the manuscript is, on the average, much more legible. Any person doubting this general statement, however, should try out and report such an experiment. Willard Beatty[1] has given some

TABLE V

COMPARISON OF RATES OF READING CURSIVE WRITING BY EIGHTH-GRADE PUPILS TRAINED IN WRITING MANUSCRIPT AND CURSIVE, THE MANUSCRIPT WRITERS HAVING HAD A COURSE IN READING CURSIVE

	Manuscript Writers	Cursive Writers
Number of children	69	75
Reading-test score:		
Lower quartile	12.2	12.8
Median	16.1	16.1
Upper quartile	22.9	18.3

delightful but not entirely fair comparisons between the two types of writing; he has given on the bottom of each page of a child's writing in manuscript, a sample of the writing of such persons as James Whitcomb Riley, Walt Whitman, Theodore Roosevelt, Louisa M. Alcott, and Abraham Lincoln. Of course, even in cursive, children write more legibly than do most adults.

While there seems to be no reason for changing from manuscript to cursive writing, question may legitimately arise concerning the difficulties in the way of such a transition in case a child voluntarily wishes to make it. We have no statistical data on this point, but have had a great deal of experience. Willard Beatty reports:

About half the pupils now in our senior high school who were taught manuscript writing in the grades have either developed some individualized form of

[1] Willard W. Beatty, *op. cit.*, pp. 8–43.

linking letters or have requested and received aid in changing to script. An increasing number each year have preferred to keep the distinctive form of manuscript which they have developed in the grades.[1]

In the Winnetka schools, partly to silence the criticism of some parents, we offer an elective course in cursive writing any time after a child has his manuscript well established, preferably in the junior high school but permissibly in the fifth or the sixth grade. Since there are few children in each room whose parents want them to make this change or who want to do so themselves, regular class work in cursive is not practicable. Consequently we have developed a self-instructive workbook,[2] and it has been our experience that children, with little help from the teacher other than a general supervision of their work, are able to transform their manuscript into a very acceptable cursive in from six to twelve weeks of practice, using a writing period of approximately twenty minutes a day. The transition has caused no difficulty whatever, and, if the manuscript writing has been well developed and the letter forms have been made up to standard, the cursive writing tends likewise to be clear and legible and well formed. When, on the other hand, children try to change from manuscript into cursive writing before the manuscript has become thoroughly a part of them, we find that the cursive writing tends to be poor.

Without statistical evidence we would say out of our experience of a number of years that, if a child is to change from manuscript to cursive writing, the later he makes the change the better, up to junior high school age. Our reason for this statement is partly our observation and partly the obvious fact that, when the co-ordinations are first being made and have not become thoroughly established as automatic, there is a great deal of confusion in changing styles of writing. When, however, the co-ordinations are adequately made, the cursive writing can be developed from the manuscript without breaking down the established habits.

With respect to the question of whether manuscript writing has individuality, the best answer lies in an examination of any collec-

[1] *Ibid.*, p. 4.

[2] Julia Krenwinkel, *From Manuscript to Cursive.* Winnetka, Illinois: Winnetka Educational Press, 1935.

tion of children's manuscript writing or the manuscript writing of adults. A collection of children's manuscript writing (junior high school) is given in the Bronxville Schools Bulletin previously referred to. When a member of the Winnetka Board of Education raised this question, we simply fastened up on the walls of the room where the board met thirty or forty samples of the junior high school writing in the Winnetka schools. This demonstration completely disposed of the question, as a similar observation must to any open-minded observer.

Finally, there is the question of the legality of manuscript-writing signatures. We have taken this question up with local banks and find that the signature placed on file by the depositor is the legal signature no matter in what form it is written. Beatty took the matter up similarly in Bronxville. He writes:

> Our attorney tells us, "There is no provision of law which specifies the form of an individual signature. Accordingly there is no legal objection to the so-called 'print writing' if that is the form of the actual signature of the person using it." The Gramatan National Bank and the Bronxville Trust Company both accept without objection manuscript signatures which are mature and characteristic.[1]

In the same bulletin Beatty reproduces the signatures of pupils who use manuscript writing. An examination of these signatures gives clear evidence of their individuality and the possibility of identifying them.

SUMMARY

1. Manuscript writing, as commonly taught at the present time, appears to be somewhat slower than cursive writing until the junior high school is reached, when manuscript becomes somewhat faster.

2. Manuscript writing at the high-school level is slightly faster than cursive writing.

3. The manuscript writing of adults who have used cursive writing most of their lives but have used manuscript habitually for two years is somewhat slower than the cursive writing of adults who have used cursive exclusively. In the light of the two preceding statements, it is probable that this result is due partly to the fact that the adults have had much longer experience in cursive writing through their formative years and partly to the fact that, in teach-

[1] Willard W. Beatty, *op. cit.*, p. 5.

ing manuscript (the results have been obtained from lower-grade teachers in comparison with cursive writers, most of whom were junior high school teachers), they have habitually used extra care in their manuscript writing, rather than to the fact that manuscript is inherently slower for adults.

4. Pupils who have used manuscript writing throughout the grades and have had no special training in the reading of cursive, read cursive after they reach high school almost but not quite so fast as do pupils who have been trained in cursive. Junior high school children, on the other hand, who have always written manuscript but have had some definite training in the reading of cursive, read cursive as rapidly as do children who have always written cursive.

5. There seems to be no sound reason for changing from manuscript to cursive. If the change is desired, however, it seems better to wait until approximately junior high school age, when the child's manuscript is thoroughly formed. At that time the transition can readily be made in six to twelve weeks with a self-instructive workbook.

6. There is no lack of individuality in manuscript writing.

7. Manuscript signatures are legal.

A CRITIQUE OF THE ELEMENTARY-SCHOOL GRADUATION EXAMINATION

DAVID SEGEL
United States Office of Education

In a recent nation-wide study by the United States Office of Education of the status of elementary-school graduating examination practices,[1] it was found that such examinations are used over a wide area, being in use either on a state-wide basis or in individual counties in thirty-seven of the forty-eight states. Although there was evidence of progress in certain of the programs, an analysis of the tests and their administration left a distinct conviction that there was room for considerable progress in most of the programs.

Even though there is not much distinct progress evident, there is a concerted effort in several parts of the country to do something about the elementary graduating examinations. The actions taken are not uniform. Some states have repealed their elementary-school examination laws. Other states that administer graduation examinations have no opportunity either to construct good examinations or to buy standardized examinations. With the present set-up of officials in state departments and the varying willingness and ability of the states to support their state departments of education, one can see that many state departments do not have any alternative to what they are doing. With the types of examinations now being used, it seems probable that in many of these states the schools would be just as well off, or perhaps better off, without examinations. For this reason it is believed that there should not be any compulsion from the standpoint of the state law. In states not able to improve their examination systems the law becomes a hindrance. However, state departments of education, through county superintendents, should have the right to set up examination systems for the schools over which they have supervisory or direct administra-

[1] David Segel, *Elementary School Graduating Examinations*. United States Office of Education Bulletin No. 16, 1935.

tive authority. City superintendents certainly have assumed such powers, and the rural and small town schools are, or if they are not should be, under the supervision of the county superintendents and the state department of education.

It should be noted in this connection that, in many states, the state university or a teachers' college is assuming the role of the state in the preparation and the administration of elementary-school examinations. This situation occurs more often in states in which the state departments of education themselves are bound by poor examination systems or do not have any examination system. In those states where there are duplicate examination systems, the plan sponsored by the outside agency is invariably the better. To avoid duplication, the state university and other agencies should co-operate, where possible, with the state department in the production and use of the elementary-school examinations. In the meantime, until the states have the facilities to bring about such co-operation, state universities or teachers' colleges should continue their work, that is, in those cases where it appears to be good.

In those states which are making changes in their examination systems, there is evidence that the former purpose of these examinations—to determine eligibility for graduation from elementary school through checking up on the fundamental subjects—is being changed. While it is true that with reliable and valid eighth-grade examinations it is now possible accurately to measure learning in the elementary-school fundamental subjects, the philosophy of education has changed so that the emphasis on this use of the examination may be questioned. This point and its related points will be dealt with later in this article.

It was discovered that, in cases where each county or several counties in a state make up their own examinations, some counties fail as high as 40 per cent and others only 1 per cent of their eighth-grade pupils on the basis of these examinations. It is possible, of course, that differences in the rate of failure can be accounted for in part by differences in average mental capacities. No mental survey of the counties involved in this study was made. It is no doubt true that in certain eastern and western states the rural populations of various counties differ considerably in cultural and intellectual

background. However, in the Middle West, where a large number of the cases studied originated, the rural population seems to be fairly homogeneous. Since the average percentage of pupils passing the examinations was 70 and most of the tests were new-type examinations, the marking thus being objective, it is thought that the greater part of the differences in failure rates is a reflection of differences in the difficulty of the examinations. If this reasoning is correct, the examinations are not fulfilling the purpose for which they are given, because whether a pupil graduates in any particular year will depend too largely on which county he happens to be living in.

A just examination for the determination of promotion of pupils to high school should be either a uniform test or a prestandardized test. For some states the construction of uniform tests throughout the state would be an improvement over the systems that they now have. However, the use of such examinations for determining graduation from the elementary school represents only a stage in the development of useful school examinations. Other types of test programs and other uses of test results offer more of value to the school than the uniform test mentioned.

Educational philosophy now holds that education should be fitted to the individual child—that the child's capacities should be a factor in his educational program. This present philosophy does not insist nearly so much as our former philosophy of education that certain portions of education be "essential" as contrasted with "nonessential." Formerly it was believed that the elementary-school program was the "essential" program and secondary education a sort of extra finish or a preparation for the professional vocations. Now the feeling is that, although certain aspects of elementary education are still "essential," the thing that makes a study "essential" has changed. Formerly "essential" studies meant only studies which are skills—reading, writing, and arithmetic. Now those studies are thought to be "essential" which contribute most to the welfare and happiness of the individual and to the betterment of the society in which he is found. Under this conception of worth-whileness it is still deemed necessary to teach the skills in the elementary school, but that all pupils should attain the same degree of skill is questioned. It depends on the pupil. If, for example, a pupil in the

elementary school has attained a fifth-grade reading ability and is of an age at which he can profit from certain exploratory prevocational courses and other courses which might be more in line with his abilities and his vocational needs, these other possibilities may be essential for him.

The need in elementary schools today is not so much a set curriculum for all pupils as a consideration of the integration of the pupil and the curriculum. This problem may be divided into two parts: (1) the instructional problem and (2) the guidance or pupil-progression problem. Consider each of these two general areas.

Take the latter first. The guidance of pupils or the progression of pupils in the elementary schools consists in the problem of entrance to school, the grade placement or placement into classes during the time that the pupil is in the elementary school, and the age and other factors considered in promotion from the elementary school into some other sort of school—high school or vocational school—or in the pupil's leaving the elementary school before finishing the course.

Should age be the sole criterion of this progression? Should strict grade standards of achievement be the basis? The new philosophy and new objectives of education insist that several factors should be taken into account: educational age in relation to chronological age, achievement in relation to grade standards, achievement in relation to mental age, and achievement in relation to the length of stay expected of the pupil before his school life is over. It is in determining this progression that tests are of great value, not only to find the pupil's achievement so that it can be related to other factors, but to determine in which particular line the pupil does best. For this reason it is proposed that the present purpose of the elementary-school graduating examinations be abandoned and the effort and money which go into their production be diverted to a testing program for all elementary pupils or for the pupils in one of the lower grades. With only effort and money enough to test one class, it should be one of the lower grades if guidance or the progression of pupils is accepted as one of the prime purposes of testing in the elementary school. If, for example, test results are obtained for fifth- or sixth-grade pupils, planning of the pupils' school careers can take

place. If a pupil should be progressed at a slow rate because he is young, this program can be definitely planned. If a sixth-grade pupil is fairly old for his grade and seems not to be able to progress much further in some subjects, it may be that for the remainder of his stay in school he can be placed in those classes which seem to give him the most, regardless of grade lines. In one- or two-teacher schools it is realized that only a little adjustment can be made. However, if an examination is administered in one of the lower grades instead of in the eighth grade, it is taken out of the category of a graduating examination and the teacher is given a free hand regarding the type of work necessary. To accomplish this result requires supervision, in many counties and states; but with competent supervision there is every reason to believe that the educational planning for each pupil and the work in school can be placed on the basis of what is best for the individual child. Of course, without supervision a testing program, no matter in what grade, may be of little value.

The other problem confronting the administrator of elementary education is the method of instruction. The elementary-school graduating examination has been used as a sort of measuring rod of teaching efficiency. Tests should be used, rather, for showing the teacher just what types of material her pupils can master and what types they cannot master, so that she can change her emphasis—or, in other words, change her instruction—to meet the needs of the class. Further, if the tests are sufficiently diagnostic, they can be used with individual pupils so that a teacher can change her instructional direction, not only for the class, but also for the individual child. A test given at the end of the eighth grade is of very little value because the results cannot be used directly. For this reason also it is recommended that examinations be given during the elementary-school course, when the results can be used directly in instruction.

It should be emphasized that, in general, tests should be used as tools in instruction or as signposts for educational planning. Ideally, the use of tests should vary with the ability of teachers and the amount of supervision. Tests and measurements should be tools, the results of which should be closely related to the school life of the individual child. Tests should tend to free the teacher so that she

can teach what seems best for youngsters, rather than to fetter her to a crystallized program. A testing program which has as its purpose educational planning for the individual and aiding in instruction means that the whole school program should be considered, from the first grade through the eighth, and that, if only one grade can be tested, it should be a grade which will show the greatest possibilities of return for the purposes stated.

Graduation from the elementary school should rest more on whether the elementary school can continue to give the pupil something of value than on whether the child has attained a set standard. Graduation should be the result of a planned educational program for the individual pupil, consideration being given not only to the elementary-school possibilities but to the possibilities of other schools. In some areas the elementary school should, despite its name, expand its offerings so that some of its children can, with profit, remain a longer period of time. Examinations, including statewide examinations, are needed more than ever in a flexible promotion scheme in order to guide the individual aright.

THE EFFECT OF ADAPTING READING MATERIALS TO SERIOUSLY RETARDED PUPILS

HAROLD H. POSTEL
Moseley School for Boys, Chicago, Illinois

Teachers dealing with seriously retarded pupils have long been of the opinion that reading materials, subject matter, and vocabulary, as found in primary textbooks in reading, are poorly adapted to the needs of pupils in special divisions, subnormal rooms, opportunity rooms, and special schools.

The average pupil in such divisions is retarded by approximately three to four years. His intelligence quotient is likely to be 75; chronological age, fourteen years; and grade level, III B. He is somewhat more sophisticated than the child who has progressed at the normal rate. Having a slight inferiority complex, he compensates by assuming the manner, tastes, and interests of the adult. Lacking in patience, he does not see the value of learning to read and the deferred reward that it will bring through increased financial remuneration, enjoyment of leisure, and insight into the problems concerning himself and his group.

The extreme cases are those of pupils who are fourteen and fifteen years of age and still reading at the first-grade or the second-grade level. The textbooks in reading which they are given to study are juvenile in content and have been used repeatedly in all the classes which the pupils have attended. The teachers using this material secure responses from the pupils such as the following: "We've read that in Miss Blank's room." "I've read that a hundred times." "Who wants to read that again?" "That's baby stuff."

What is urgently needed for the special class (and perhaps for a large number of pupils struggling in regular classrooms) is reading material of interest to the pupil of more advanced years, whose tastes in literature resemble those of the adult and whose reading ability is at the third-grade level or below.

With these facts in mind, Mrs. Effie Truax, Miss Helen Latchford, Mrs. Constance Lamphear, and Miss Evelyn Cronin, four teachers in the Moseley School for Boys, whose pupils ranged in ability from the first through the fourth grade, decided to attempt an experiment in writing stories which would be more acceptable than the material found in lower-grade textbooks. The vocabulary was kept at the third- and fourth-grade level. In most cases the stories were simplified versions of selections which have proved to be popular among upper-grade and high-school children. The topics covered the activities of older children and adults and included action, drama, adventure, transportation, sports, and other features.

The plan was to present these stories in mimeographed form, at the rate of one or two pages a day, and to note whether more interest was aroused and learning to read was accelerated in greater degree than usually occurs through the use of standard textbooks. The stories were placed on paper $8\frac{1}{2}$ by 11 inches in size, with no "baby pictures" and no indication of grade level to humiliate the pupil. Eighteen stories were presented, the titles of which indicate, in most cases, the nature of the contents:

A Visit to a Coal Mine
Kenny [story of a boy who helped the police]
The Picnic in the "Dolphin" [adventure in a boat]
A Record Run on the Railroad
Aesop's Fables
The Greatest Danger of Sir Launcelot
The Owl
Story of a Jockey
The Canadian Mounted Police
Hansel and Gretel
The Blind Setter
Aeroplane in the Fog
Will Scarlet and Robin Hood
The Lame Duck [high-school sport story]
The Honeybee
King Tut's Grave
Hercules
Sindbad the Sailor

The stories were given daily over a three-month period in addition to the regular reading. No motivation was attempted since it was desired to determine whether the new material was self-motivating. The difficult passages were read orally in order that the children might not become discouraged. In some cases the teacher read a few paragraphs, and the pupils finished the reading independently. There was little or no drill on words since we wished to ascertain whether the pupils' interest would be aroused to such an

extent that they would make serious efforts to read this new material.

Standardized tests were administered at the beginning and at the end of a three-month experimental period by Mrs. Leota Boetticher, of the Child Study Department of the Chicago Board of Education. The Kuhlmann-Anderson Intelligence Test was used to secure the intelligence quotients; the Stanford Reading Examination was used in measuring word recognition and paragraph meaning.

The number of pupils was too small to allow the organization of a control group. The experiment cannot therefore be considered completely scientific or conclusive. It was believed, however, that testing would give some insight into the effectiveness of the material that had been prepared. The teachers observed the reactions to each type of story and the general interest taken in each topic.

The results of the testing, as tabulated by the staff psychologist, are shown in Table I. Only the records of those pupils are given who were present during the entire three-month period and who took all the tests. Complete results were secured from the psychologist on twenty-eight pupils.

Although twenty-eight cases is a small number on which to base positive conclusions, the results indicate that interest was aroused by the special material and that the process of learning to read was accelerated in spite of certain shortcomings in the material. For example, the physical makeup of the mimeographed page is not so attractive as that of the printed page, and there were no illustrations or other devices used which tend to secure interest on the part of the pupil. Notwithstanding these drawbacks, pupils with an average intelligence quotient of 71, an average chronological age of twelve years and four months, and a reading grade of 2.6 were able, during the three-month reading period, to make an advance of six months on paragraph meaning—to a grade level of 3.2. Theoretically, instead of a six-month growth, .71 of a three-month growth, or two months of progress, would be expected. On the other hand, the expectation would be that pupils twelve years and four months of age with an intelligence quotient of 71 would have attained a grade level of 4.5 ($.71 \times 6.3$). The reading material merely enabled the pupils to approach the level of their capacity.

In word meaning these pupils made only the progress that would be expected of children of average intelligence working at their

TABLE I

RESULTS ON KUHLMANN-ANDERSON INTELLIGENCE TEST AND READING GRADE ON STANFORD READING EXAMINATION OF TWENTY-EIGHT PUPILS IN MOSELEY SCHOOL WHO USED SPECIALLY PREPARED READING MATERIALS

PUPIL	CHRONOLOGICAL AGE FEBRUARY, 1936	KUHLMANN-ANDERSON TEST, FEBRUARY, 1936		READING GRADE					
				February 6, 1936		May 14, 1936		Progress in Months	
		Mental Age	Intelligence Quotient	Paragraph Meaning	Word Meaning	Paragraph Meaning	Word Meaning	Paragraph Meaning	Word Meaning
1.....	8- 8	8-10	102	2.8	2.6	3.7	3.4	9	8
2.....	10- 2	7- 1	70	1.6	1.0	2.0	1.7	4	7
3.....	10- 3	8- 2	80	2.6	2.5	2.7	2.5	1	0
4.....	10- 8	7- 1	66	2.5	2.7	2.7	3.0	2	3
5.....	10-10	7- 5	68	1.5	1.7	1.6	1.4	1	− 3
6.....	10-10	8- 5	78	2.8	2.6	4.9	4.1	21	15
7.....	10-10	9-10	91	2.7	2.9	3.0	2.9	3	0
8.....	10-11	9- 5	86	0.0	2.9	1.9	1.8	19	−11
9.....	11- 3	9- 4	83	4.9	4.6	4.7	4.9	− 2	3
10.....	11-10	8- 6	72	2.8	2.6	2.9	2.6	1	0
11.....	12- 0	7-11	66	1.6	1.2	1.9	1.6	3	4
12.....	12- 0	8- 4	69	3.2	2.6	2.3	3.2	− 9	6
13.....	12- 1	8- 9	72	3.7	3.0	5.2	3.2	15	2
14.....	12- 2	9- 0	74	3.4	3.1	4.3	4.0	9	9
15.....	12- 4	7-11	64	2.9	2.6	3.3	2.6	4	0
16.....	12- 7	8- 6	68	2.5	2.1	4.3	3.2	18	11
17.....	12- 7	9- 3	74	2.8	3.4	3.7	3.6	9	2
18.....	13- 0	8- 2	63	2.0	2.0	2.6	3.2	6	12
19.....	13- 0	8- 2	63	2.7	2.2	3.6	3.3	9	11
20.....	13- 2	8- 8	66	2.8	2.6	2.5	2.6	− 3	0
21.....	13- 3	9-10	74	2.6	2.8	3.3	2.6	7	− 2
22.....	13- 6	6- 5	48	1.3	1.0	1.7	1.4	4	4
23.....	14- 0	9- 2	65	2.8	2.6	3.5	2.6	7	0
24.....	14- 4	12- 2	85	2.0	2.6	2.4	2.4	4	− 2
25.....	14- 6	8- 9	60	2.9	4.8	3.3	3.8	4	−10
26.....	14- 8	9- 6	65	3.2	3.0	4.4	4.1	12	11
27.....	15- 3	9- 1	60	4.0	3.4	4.4	4.1	4	7
28.....	15- 3	9- 5	62	3.3	2.6	3.7	3.2	4	6
Average	12- 4	8- 8	71	2.6	2.6	3.2	3.0	6	3

proper grade level. The lesser advance in word meaning may indicate that the children read the material and secured the meaning in

spite of inability to understand words when isolated from context. Interest in the reading may have carried them along with a resultant greater progress in paragraph than in word meaning.

The consensus among the four teachers who conducted the experiment was that the children's interest was greater than their interest in ordinary textual material at the third-grade level. Attention was greater and discipline less difficult during the reading period, although the school cares for truant and delinquent boys. There was an eagerness shown for the following day's lesson by anticipating what the next pages would contain. This latter fact may indicate the advantage to be derived by giving the pupil a page or two at a time, rather than giving him an entire story or an entire book. The attention is not dissipated by looking through a large number of pages.

The comments and conclusions made by the teachers conducting the experiment were as follows:

1. Our main academic problem in the ungraded class is securing reading material adapted to the ability and to the interests of the pupils. We need reading matter suitable for boys who are advanced chronologically and seriously retarded in reading.

2. It is necessary at first to provide the retarded pupil with reading content that he enjoys, not what the teacher thinks he wants or what she believes he should have.

3. It was found that the stories of greatest appeal are those of adventure, daring, physical prowess, sports, feats of skill by the engineer, police, and other modern workers.

4. Factual material, concerning industry, nature study, geography, history, unless clothed in a plot involving activity, bravery, etc., fell in the lower half of the preference scale.

5. Learning of paragraph meaning proceeds at a faster rate than learning of word meaning when the materials presented are within the range of the child's dominant interests.

6. It is easier to secure the interest and maintain the attention of retarded pupils with adapted material than it is when using material which has been written for seven- and eight-year-old children.

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FLORENCE L. GOODENOUGH
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Describes the construction of scales for measuring the musical performance of preschool children.

143. SKEELS, HAROLD M. "Mental Development of Children in Foster Homes," *Pedagogical Seminary and Journal of Genetic Psychology*, XLIX (September, 1936), 91–106.

Children placed before the age of six months in foster homes of superior or average cultural status tested higher at the age of eighteen to forty-eight months than would be expected on the basis of their true parentage.

144. SONTAG, LESTER WARREN, and WALLACE, ROBERT F. "The Movement Response of the Human Fetus to Sound Stimuli," *Child Development*, VI (December, 1935), 253–58.

Records of the sensations of fetal movements in response to auditory stimuli applied to the abdominal wall as reported by the mothers show that the response to sound stimulation is detectable about the thirty-first week of intrauterine life and increases in magnitude as the fetus nears term.

145. THOMPSON, HELEN. "The Development of Upright Posture," *Journal of Experimental Education*, IV (December, 1935), 103–11.

A description of the development of upright posture, illustrated with sketches showing the different developmental stages in the achievement of the prone, sitting, and standing positions.

146. UHRBROCK, RICHARD STEPHEN. "Words Most Frequently Used by a Five-year-old Girl," *Journal of Educational Psychology*, XXVII (February, 1936), 155–58.

Frequency of occurrence of different common words used by a five-year-old girl in dictating twenty-four thousand words into an Ediphone during the six weeks preceding her fifth birthday.

147. VAN ALSTYNE, DOROTHY. "Relaxation and Some Related Factors: An Exploratory Study Made in Five Nursery Units," *Child Development*, VI (December, 1935), 310–21.

Individual differences in sleep habits already established seem to be more important in influencing the character of the relaxation period than such factors as amount of activity during play period, nature of play activities, amount of food consumed, location of play activities, etc.

148. WENGER, M. A., SMITH, JOSEPHINE M., HAZARD, CHARLES, and IRWIN, ORVIS C. *Studies in Infant Behavior. III.* University of Iowa Studies in Child Welfare, Vol. XII, No. 1. Iowa City, Iowa: University of Iowa, 1936. Pp. 206.

The first study, "An Investigation of Conditioned Responses in Human Infants," indicates that some forms of conditioning can be established in the newborn infant but that the responses are likely to be unstable. The second study is a determination of the relative brightness values for the newborn infant of hues of red, blue, and green. In the third study, "Fluctuations in Skin Resistance of Infants and Adults and Their Relation to Muscular Processes," little relation was found between skin resistance and various criteria of sleep in either infants or adults. The fourth study, "The Relation of Reflex Conduction Rate in the Patellar Reflex to Age in Human Beings," indicates that the reflex conduction rate increases rapidly from birth to the sixth year and more gradually thereafter. The fifth study, entitled "Qualitative Changes in a Vertebral Reaction Pattern during Infancy," is a motion-picture study of the changes with age in the patterns of curvature of the vertebral axis during head-downward suspension.

149. WILLIAMS, HAROLD M. "A Factor Analysis of Berne's Social Behavior Patterns in Young Children," *Journal of Experimental Education*, IV (December, 1935), 142–46.

A factor analysis of social-behavior patterns showing a clustering of traits around two axes, one of which may be called a general factor of approach-withdrawal, the other a general factor of ascendance-submission.

150. *The Young Child in the Home.* Report of the Committee on the Infant and Preschool Child, John E. Anderson, Chairman. Section 3, Education and Training, White House Conference on Child Health and Protection. New York: D. Appleton-Century Co., Inc., 1936. Pp. xii+416.

A survey of home conditions and facilities and parent practices in child care and training in three thousand representative American homes. Includes a section on the negro child.

NONTECHNICAL BOOKS AND ARTICLES PRIMARILY FOR PARENTS TEACHERS, AND WORKERS IN THE FIELD OF PARENT EDUCATION

151. ALPERT, AUGUSTA. "Educational Group Therapy: An Experiment," *Progressive Education*, XIII (March, 1936), 170–73.

An account of the manner in which four thumb-sucking children were cured of the habit through group therapy.

152. ARBUTHNOT, MAY HILL. "Telling Stories and Reading Aloud to Young Children," *Childhood Education*, XII (May, 1936), 347–51.

A discussion of the techniques of story-telling.

153. BACMEISTER, RHODA. "Nature Study with Young Children," *Parents' Magazine*, XI (April, 1936), 22, 23, 72–75.

How to teach a child to enjoy nature.

154. BENNER, ROBERT W. "Sex Education," *Hygeia*, XIV (March, 1936), 220–21.

Specific suggestions about what to tell the child when he begins to ask questions about sex.

155. BRADBURY, DOROTHY E. "The Case for Nursery Schools," *Childhood Education*, XII (June, 1936), 406–9.

A review of research in preschool education showing the advantages to the child of attendance at nursery school.

156. CUSHING, HAZEL M. "The Federated Block Plan: Critique of the Plan from the Standpoint of Parent Education," *Parent Education*, II (January, 1936), 6–7.

Provided parents are given beforehand some definite training in acceptable educational procedures with young children, such neighborhood organization as the federated-block plan suggests would do a great deal to interest parents in child study and to teach them desirable techniques of guidance and management.

157. FEDIAEVSKY, VERA, in collaboration with PATTY SMITH HILL. *Nursery School and Parent Education in Soviet Russia.* New York: E. P. Dutton & Co., 1936. Pp. xx+266.

An account of aims, accomplishments, and methods used in the care and training of infants and preschool children in the Soviet Union with particular stress on methods of co-ordinating the work of the public crèche with the education of parents in proper methods of child care.

158. FOSTER, ROBERT G. "The Federated Block Plan: A Proposal for the Dissemination of Parent Education and Preschool Facilities," *Parent Education*, II (January, 1936), 4–6.

In order to extend to a greater number of parents the advantages of nursery-school care of children without the expense ordinarily involved and, at the same time, to train parents in scientific child care, a plan is suggested whereby six or eight families living in the same neighborhood can arrange to rotate the morning care of the children among the mothers so that one mother will care for all the children one day a week and will be free the remainder of the week.

159. HAXTON, JENNIE N., and WILCOX, EDITH. *Step by Step in the Nursery School.* Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xiv+224.

Day-by-day case studies of behavior problems shown by nursery-school children, with accounts of the methods by which the difficulties were handled.

160. KELLEY, EDNA EWING. "Uncle Sam's Nursery Schools," *Parents' Magazine*, XI (March, 1936), 24, 25, 48–49.

An evaluation of the work done by the emergency nursery schools in the fields of preschool education and parent education.

161. LANGDON, GRACE. "The Federated Block Plan: Critique of the Plan from the Standpoint of Child Welfare," *Parent Education*, II (January, 1936), 7–8.

The greatest weakness of the federated-block plan is that the welfare of the children is not adequately safeguarded. The welfare of the children and their opportunities for development, not the benefits accruing to the parents, should constitute the point of departure of any such plan.

162. LEEPER, MARY E. "Childhood Education in Other Countries," *Childhood Education*, XII (February, 1936), 197–200.

A glimpse of preschool and elementary education as it exists in different countries of the world. Based on reports given at three international conferences held in the summer of 1935 in Geneva, Brussels, and Oxford.

163. LOMBARD, ELLEN C. *Parent Education Opportunities.* United States Office of Education Bulletin No. 3, 1935. Pp. viii+54.

Describes the activities of agencies that have had parent-education programs since 1930 and indicates the opportunities provided by each for training future workers in the field.

164. SCHULTZ, GLADYS DENNY. "When Toilet Training Lapses," *Parents' Magazine*, XI (February, 1936), 25, 76–77.

Breakdowns in toilet training in the child under three are temporary phases of the development process and should be accepted as such by parents. Retraining and not emotional concern is the solution to the problem.

165. WAGONER, LOVISA C. *Observation of Young Children.* New York: McGraw-Hill Book Co., Inc., 1935. Pp. x+298.

An outline for observation designed to direct the student in work with young children. Prefaced by a discussion of the functions of the nursery school.

166. ZABRISKIE, LOUISE. *Mother and Baby Care in Pictures.* Philadelphia: J. B. Lippincott Co., 1935. Pp. x+196.

An excellent description of prenatal and postnatal care of the mother and child. The book is well illustrated with pictures of correct methods of care as practiced in the various maternity centers of the country.

Educational Writings

REVIEWS AND BOOK NOTES

Equalizing the financial burden of the maintenance of public schools in the United States.—A companion volume[1] to the report developed under the auspices of the National Survey of School Finance (Paul R. Mort, assisted by the Research Staff, *State Support for Public Education.* Washington: American Council on Education, 1933), which dealt primarily with the issues of school support within the several states, brings together the results of a series of investigations that were focused on the problems having to do with federal aid to public education. The researches underlying these publications, whether carried on by Mort or his associates, reveal technical skill of a high grade and unusual insight in dealing with problems that do not lend themselves easily to objective analysis. The volume under review is one of a series of publications of researches and surveys relating to school support that have had their origin in a dissertation for the doctorate (Paul R. Mort, *The Measurement of Educational Need.* Teachers College Contributions to Education, No. 150. New York: Teachers College, Columbia University, 1924).

The first of the eleven chapters summarizes and discusses the findings of the studies that comprise the present volume. The reader searching for a "well-rounded picture of the federal support problem" (p. xv) will find in chapter i an exposition of the principles of school finance as they relate to federal support, the foundation program for schools, the problem of central control, and the possible scope and uses of federal aid. The following two short chapters present the experiences of the national government in aiding education and the bases for establishing a permanent policy of federal aid in equalizing educational opportunity throughout the country. Chapters iv and v indicate the manner in which the measures of need already developed were refined for use in projecting a plan for federal aid and for establishing an index of educational need that could be used for comparing states. The methods developed for making adequate adjustments for variations in living costs, for differences in costs of schools in rural and

[1] *Federal Support for Public Education:* A Report of an Investigation of Educational Need and Relative Ability of States To Support Education as They Bear on Federal Aid to Education. Made under the direction of Paul R. Mort and under the auspices of Columbia University Council for Research in the Social Sciences. New York: Teachers College, Columbia University, 1936. Pp. xvi+334.

urban areas, for differences in costs of elementary and secondary schools, and for variations in population groups are likewise presented. Educational need is based on the cost of a given educational program carried on under current practices within the states.

The underlying technical researches which have to do with measuring the differences in the ability of local governments and states to support public schools are analyzed in chapters vi and vii. It is shown that all the methods that have been proposed or used in measuring the relative ability of states to maintain systems of education are inadequate for purposes of distributing federal money. Yet the author sensibly points out that in spite of limitations the most acceptable plan must be used until a better scheme is devised. In this work the relative ability to maintain schools was scaled in terms of the tax-paying ability of governmental units as measured under an application of a modern tax system to each state.

Having established a relative index of educational need and the ability of states to maintain schools, the author proceeds in chapter viii to define the program of education on which aid is to be distributed. From among the possible programs it was decided to build one by selecting from thirty states for which adequate data were available "those communities which have the same ability to support schools as the average community in the country would have should the present defects in state tax systems be remedied. The experience of these communities is taken as an index of what could be established as a national foundation program if the financial houses of the states were put in order and if the federal government were to assume responsibility for equalizing the burden of education among states" (p. 209).

The three remaining chapters are devoted to discussions dealing with patterns of financial aid that might be used for distributing federal money. In these pages are considered the relative merits of the small- and the large-fund plans and combinations of these plans. Federal aid for rural building, for adult education, for higher education, for scholarships, for indigenous peoples, and the territories are also considered in their relation to the general pattern proposed for distributing federal aid to states. The Appendix, which is divided into eight parts, preserves the more technical aspects of the studies underlying the volume for those students who are primarily interested in this field of endeavor.

The plan proposed in this study calls for an initial annual appropriation of $300,000,000 by the federal government for the support of public education. It should be distributed "so as to provide to states a flat grant of $6 per weighted pupil unit, the equalization of a $15 foundation program, and a guaranty of 20 per cent of ultimate aid under a really defensible program" (p. 28). No one would expect that a problem so extensive and complex as this of federal aid to education could be solved in its initial developments without having students of education raise some questions. The proposed plan might well be accepted and urged for adoption by the federal authorities for the initial equalization of the school-support burden in the United States. It must be fully realized, however,

that a continuous study of the underlying premises of the plan must be carried on and that practices resulting from the initial grants must not become so intrenched as to supply nourishment to the maintenance of educational practices in the several states which now have no educational, economic, or sociological justification. In the spending of $300,000,000 for equalizing educational opportunity in the United States, the federal government could well afford to appropriate the necessary money for the further study of the problem of federal and state support of schools.

One may question the desirability of distributing federal aid for constructing rural schools except after a most searching investigation of all the problems relating to rural education. The rural school, the district organization for the maintenance of schools, transportation, and the problems of school organization are all interdependent. Observations on present federal aid to localities for schoolhouses leads to the belief that many weaknesses in educational practices are thereby to be intrenched for another generation or two.

To distribute federal aid according to a measure of need developed from current school practices, which involve the types of secondary schools and elementary schools prevalently found, the thousands of small uneconomical school districts, the large number of unqualified personnel, and the like, may tend to slow up the reforms which were being brought about by local economic distress during the depression. May it not be necessary to establish some pattern of modern school organization and practice as the basis for measuring need, such as was applied in the measure of tax-paying ability?

In a recent discussion of the problems of federal aid to schools ("A Program for Federal Support of Education," *Elementary School Journal*, XXXVII [October, 1936], 81–88), it was shown that the burden of child care and education in the states differs markedly. It was pointed out that the number of children per thousand of adults is so unlike in the states as to produce a demand for education that could not be adequately equalized through the plan of support proposed in Mort's volume, and it was held that any proposal of federal aid "should be heavily weighted in favor of those areas where the birth-rate is the highest, where the burden of child care is the greatest, where the level of living is the lowest, where the home has least to contribute to cultural and intellectual growth, and where economic resources are the most restricted."

FRED ENGELHARDT

UNIVERSITY OF MINNESOTA

Some suggestions about activities.—A. Gordon Melvin has written a book[1] worth reading. A member of the education staff of the College of the City of New York, Melvin has been one of the more prolific writers in the field of the new education. An enthusiastic exponent of progressive education, he has attempted to do for the practice of the newer educational methods what Dewey

[1] A. Gordon Melvin, *The Activity Program*. New York: Reynal & Hitchcock, 1936. Pp. x+276. $2.90.

and Kilpatrick have done for the underlying philosophy. Realizing that a philosophy is sometimes difficult to apply in the absence of concrete examples, Melvin has been gathering together the examples. His several books have not always been entirely even in quality, and some of his earlier volumes could be criticized for the tendency to formalize descriptions of procedures which were presented as desirable examples of newer educational thought and action. In this latest volume the author has carefully avoided this fault.

There is little doubt that the progressives' bitter criticism of the old formalized curriculum has led to some misunderstanding regarding the place of prior planning in the program of the new education. In his earlier chapters Melvin has defined clearly and objectively the relations of the teacher, the curriculum, and the child in the more successful progressive schools. The author states the case very well when he says:

> The teacher is a mediator between the child and the curriculum. That is so whether the teacher is working with a well-developed and fairly definite curriculum or with a curriculum which she carries in her head and refuses to write down. No teacher can teach without some notion of the goals which she regards as suitable for children. There is a certain meeting ground between the two extremes of child-centered and curriculum-centered education. If child-centered education begins with the spontaneous offerings of the children, it nevertheless develops in the direction of some curriculum or other. If not, school life would become like the aimless outdoor summer play of children who have no teacher guide. On the other hand, the most formal, subject-matter curriculum must awaken a certain degree of child activity or it never succeeds. In other words, teaching in the modern school is less a matter of curriculum and more a matter of method [p. 40].
>
> The teacher . . . . has been active in preparing an environment which abounds with various stimuli to activity. She is active in awakening needs [p. 123].

And further:

> . . . . the teacher actually imbues the curriculum with the values of her own personality. The teacher herself sets the attitudes and the atmosphere of learning and endows the curriculum with values. What values the teacher accepts by authority or consent or imagination must ever determine the life of the school. . . . .
>
> Those who are concerned with writing curriculum should do all in their power to see that it appears in the form of some set of goals, each of which appears intrinsically worth while to the learner beholding it. . . . . The curriculum must list values which appear as things which children of the age for which they are intended actually want [pp. 75–77].

Melvin has had the further courage to describe and criticize the work of schools which are posing as progressive but which are actually developing what he terms "the false project." His criticisms are sound and fundamental. It is healthy to find a defender of the new education with the courage to analyze and to reject that which poses as progressive without a sincere understanding of the psychological values inherent in the new educational procedures.

Much of this new volume is made up of specific analyses of projects and activities, in which the objectives are carefully listed and the outcomes evaluated.

While these may not appeal to the educational theorist, they should prove of real value to the classroom teacher who is struggling for a clear understanding of the newer educational concepts in terms of her own day-to-day experiences.

In *The Activity Program* Melvin has made a valuable contribution to the literature of the new education. It is a volume which should be read with interest by students of education, and it should prove of more help to prospective teachers than a majority of the available books touching on progressive education.

WILLARD W. BEATTY

DIRECTOR OF EDUCATION
UNITED STATES OFFICE OF INDIAN AFFAIRS

History in the middle grades.—In revising her earlier work on *Teaching American History in the Middle Grades of the Elementary School,* Miss Kelty has prepared a volume[1] which merits a place for itself, not as a revision, but as a new and welcome contribution to the field for which it is written. The book should be added to the library of every elementary-school and junior high school teacher of the social studies. This reviewer would also include much of Part I, which is devoted to "The Psychological and Social Foundations," in a list of recommended readings for senior high school teachers.

This book might easily be reviewed in superlatives, so thoroughly and painstakingly has the author covered her problem. The new volume is much more than a revision of the earlier book. Part I is entirely new and reflects an acquaintance with, and an understanding of, the trends of the last decade, together with a familiarity with the rapidly increasing mass of literature in this field. One notes, for example, that the author is sensitive to the implications of the Report of the Commission on the Social Studies of the American Historical Association. At the same time, she is discriminating and critical in her adaptation of these implications to the grade level for which she writes. Part I is, in effect, a complete introduction to the teaching of history in the middle grades, but teachers at any grade level should be grateful for the excellent and really penetrating discussions of objectives, the problem of interest, an integrated technique, the conversational approach, and the reading problem.

Parts II and III consist of five units on early American history and seven on later American history and represent a complete reorganization and rewriting of the units presented in the earlier volume. The references and the teaching aids are brought up to date, and, in place of an almost exclusive reliance on the Morrison technique and its terminology, there is offered an "integrated technique"—an "integration of the established values into a higher synthesis" (p. 34). It is in this emphasis on the need of integration and a higher synthesis in the field of method that the author has made a distinctive contribution. Part IV is devoted

[1] Mary G. Kelty, *Learning and Teaching History in the Middle Grades.* Boston: Ginn & Co., 1936. Pp. viii+694. $2.40.

to six units on "Learning and Teaching the Beginnings of Civilization," a field not included in the earlier volume.

Elementary-school teachers have long been indebted to Miss Kelty for help in attacking the problem of the lower-ability group. The new volume again makes an important contribution in this respect, going much further in suggesting and differentiating between materials and study aids for "independent readers" and "lower-group" pupils.

Mention should also be made of the balance and the perspective with which the author approaches the problem of teaching history in the middle grades. This characteristic is especially noticeable in her handling of the issue of "integration or subject units." Her interpretation of current curricular trends in the social studies allocates varying degrees of integration to the primary, junior high school, and junior-college levels, retaining organization into subject units for the middle grades, senior high school, and senior college and graduate years. It is as a part of this "evolving pattern" that Miss Kelty has developed her subject units in history for the middle grades.

BURR W. PHILLIPS

UNIVERSITY OF WISCONSIN

Plans and materials for teaching music at the elementary and junior high school level.—In many schools the music lesson is taught by teachers deficient in aptitude and training in the subject. To such as these the present book[1] is directed. In simple and direct manner the author takes up the various phases of instruction, such as the music program, objectives, lesson plans, equipment, voice, rote singing, sight singing, part singing, song dramatization, rhythm and the rhythm band, appreciation, creative music, school music and the community, and music in rural schools. In addition to discussions of a general nature, one section contains ninety-three songs with notation; another section is devoted to materials dealing with fundamentals of music.

The author does not advocate one method in any of the musical items but attempts to describe various procedures. Traditional devices and commonly accepted theories are briefly set forth. In the light of recent experimentation and research made by psychologists and musicians, some statements may be questioned. For example, why is the best singing range of young children given from *e flat* to *f sharp* of the treble staff? The upper pitches are seldom produced freely and beautifully. In exercises or drills for so-called "monotones" it is likewise unfortunate that the pitfalls of certain conventional schemes are not pointed out to the inexperienced teacher. Words such as "here" and "Jimmie" (p. 10) are not easy to sing, especially when they occur in the upper range of voice. It is desirable and necessary that the mouth be open to sing. However, the width of the opening depends on the natural size and conformation of the

[1] Clella Lester Perkins, *How To Teach Music to Children*. Chicago: Hall & McCreary Co., 1936. Pp. viii+216. $1.50.

mouth and also on the word and pitch to be sung. To force the teeth apart beyond a certain point would stiffen the jaw and throat. The direction to the pupil to "place two of his fingers, one above the other, between his teeth, while singing *ah*" (p. 15) may be frowned upon, not only because the procedure would not be hygienic, but because to open the mouth to this extent would in many cases cause discomfort and poor vocal quality. The author favors the use of sol-fa syllables in teaching music-reading and songs and says that the logical scale for begining them is the scale of C. This statement is contradictory to that made previously regarding the range of children's voices.

However, in spite of some defects in the book, there are many admirable features. The lists of references given at the close of some chapters are valuable. Methods are clearly stated, and the materials suggested are generally of good quality. The book may be considered a ready reference for the musical novice, as well as a useful manual for the more experienced teacher. The volume is attractively made, with clear print, good paper, and practical binding. A complete table of contents and an adequate index add to its usefulness.

ANNE E. PIERCE

UNIVERSITY OF IOWA

The application of principles of educational method to the teaching of physical education.—In spite of the fact that physical education as a school subject is required by some form of legislation in a majority of the states, there are few books dealing with general teaching methods in the field. Reasons for this lack may be that, while not new, physical education is one of the more recent subjects added to the public-school curriculum; that the nature of physcial education in this country has been undergoing radical change; and that physical education is a phase of education rather than a school subject and comprises within itself a wide variety of subjects.

For a number of years one book on teaching methods in physical education (William Skarstrom, *Gymnastic Teaching*. Springfield, Massachusetts: American Physical Education Association, 1914) was outstanding. The change from formal programs to the modern "natural" programs of physical education created a demand for books on method which would aid in preparing individuals to teach the new physical education. Three have been published in recent years. The latest of these books[1] fills a real need. It reviews the background of physical education through its chapters on "Principles of Physical Education," "The School Program of Physical Education," and "The Hygiene of Physical Education." It reviews the groundwork of method by means of its chapters on "The Learning Process," "Foundations of Motivation," "The Individual Pupil," and "Individual Differences in Physical Fitness and Achievement." The special application of principles of educational method to the teaching of physical educa-

[1] Jackson R. Sharman, *The Teaching of Physical Education*. New York: A. S. Barnes & Co., Inc., 1936. Pp. viii+238. $1.60.

tion is dealt with in chapters on "Class Management," "Class Organization and Control," "Methods of Presenting Subject Matter," "Planning Instruction," "Special Methods in Activities," and "The Measurement of the Results of Teaching." The chapters are not presented, however, in the order in which they are mentioned here.

The author believes method to be a way of adapting subject matter to the needs of the learner. He thinks of education as a process of adjustments which can best be accomplished when education conforms to basic principles. He realizes fully the place of education in a democracy. The importance of adapting method to meet the problem of individual differences is evidenced throughout the book. Continued and frequent references to the literature on educational method and to research studies on general and physical-education method enrich *The Teaching of Physical Education.*

In addition to some question as to the logicality of chapter sequence and the inclusion in a book on methods of a large amount of space devoted to introductory and explanatory matter, *The Teaching of Physical Education* appears somewhat lacking in that wealth of practical techniques of method in physical education which would offer the unoriginal teacher concrete suggestions conforming to educational theory in such a way that the teacher's initiative and individuality are broadened rather than narrowed. This deficiency, if it is such, is especially noticeable in the chapters dealing with "Special Methods in Activities" and with "The Measurement of the Results of Teaching."

This book is especially meritorious because of its easy readability, its broad concept of physical education, its recognition of the importance of individualizing instruction, its emphasis on emotional development and on the formation of desired attitudes and ideals, its criticism of an overemphasis on the teaching of skills, and its close conformance with principles of educational method. *The Teaching of Physical Education* envisages a new type of physical-education teacher. It is doubtless the best book in its field.

D. K. Brace

University of Texas

A new word list.—A publication by Buckingham and Dolch[1] sets forth a list of words obtained by combining various word lists which have been developed by other investigators. A hasty count indicates that approximately nineteen thousand words are catalogued.

The study is made up of three rather distinct parts. The first deals with an experiment, conducted by the authors, based on the so-called "free-association" method. In this experiment a large group of children in each of the elementary-school grades, beginning with the second, were asked to write any words which came into their minds during a period of fifteen minutes. This method seems to

[1] B. R. Buckingham and E. W. Dolch, *A Combined Word List.* Boston: Ginn & Co., 1936. Pp. iv+186. $1.50.

make a contribution to the methods of vocabulary study in that it apparently introduces the element of context with greater success than other investigations have done.

The second part of the study names eleven different word lists from which the combined list is derived in part. The authors of these lists include Thorndike, Gates, Horn, and other well-known writers. This part of the study also includes five criticisms or comments on the resulting combined list which, according to the authors, may be considered as limiting its usefulness: (1) Children's word knowledge changes with life conditions. (2) There are gaps in the list. (3) The environment of children varies in different parts of the country. (4) The problem of correct grade placement of the words is complicated by the combination of the lists. (5) No definite meaning or meanings are given with any of the words.

The third part of the study is the actual word list arranged alphabetically, each word being followed by certain symbols indicating the original list or lists from which it was taken. The many teachers who use word lists in their daily work should find this volume a distinct aid.

C. T. GRAY

UNIVERSITY OF TEXAS

Supplementary reading for the elementary grades.—A book of interesting and well-told stories of Norway, Sweden, and Denmark has been written for children in the late primary and early elementary grades.[1] The material has many possibilities for classroom use: as a social-science reader, as supplementary reading in geography, and for recreational reading. The author, who collected her material in the countries about which she writes, tries to give the children an understanding of these people who live "near the top of the world" so that the children will regard them as people like themselves and not as queer or amusing. She shows the young readers how these people make their ways of living fit the land in which they live. In the folklore, the Viking tales, the descriptions of castles and open-air museums, the children see history as the background for the present-day life of the people. The book is not cluttered with suggestions for work and with questions to be answered. The illustrations are well-chosen photographs which add to the enjoyment of the stories. The book is excellent and, worth a place in any classroom at the appropriate level.

A second supplementary reader[2] is suitable for children of the upper elementary grades when they need a vivid picture of lumbering in the early days of that industry. The author takes his readers into the great forests of long ago. He makes them familiar with some of the wonderful trees and with many of the little

[1] Nelle E. Moore, *Near the Top of the World:* Stories of Norway, Sweden, and Denmark. New York: Charles Scribners' Sons, 1936. Pp. xiv+196. $0.76.

[2] John Hamlin, *Tales of an Old Lumber Camp:* A Story of Early Days in a Great Industry. Boston: D. C. Heath & Co., 1936. Pp. iv+184. $0.80.

creatures of the forests. He lets them listen to the wood choppers as they work and as they talk. He takes them to the camps where the lumberjacks are gathered for their meals or for Sunday rest. He takes them to the mills and to the logging railroads. He shows them the logging crews at work, and he gives them a lesson in forestry. He gives all his space to telling his story and to a glossary and does not use valuable space for study material. Knowing that the children will gain more from the photographs and drawings and from the colorful stories than from answering a number of questions at the end of each chapter, he wisely omits all study equipment. The book is interesting and thoroughly worth while for the children for whom the author has prepared it.

ADA R. POLKINGHORNE

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BRUNSTETTER, M. R. *How To Use the Educational Sound Film.* Chicago: University of Chicago Press, 1937. Pp. xiv+174. $2.00.

CHENOWETH, LAURENCE B., and SELKIRK, THEODORE K. *School Health Problems.* With a chapter on "School Health Administration" by Richard Arthur Bolt. New York: F. S. Crofts & Co., 1937. Pp. xii+388. $3.00.

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